KV-X2553E/X2953E

RM-816

SERVICE MANUAL

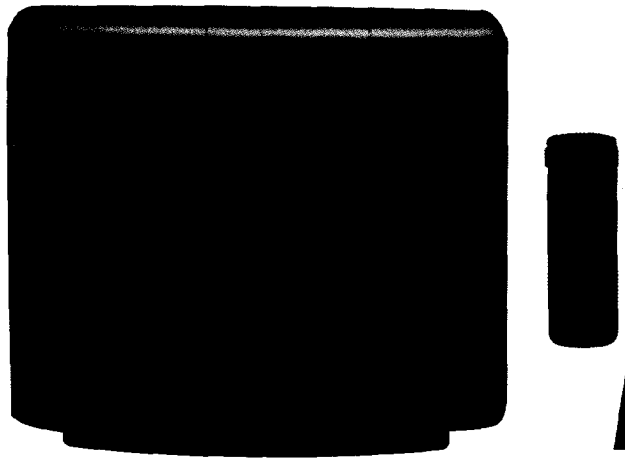
Spanish Model

KV-X2553E

Chassis No. SCC-E22U-A

KV-X2953E

Chassis No. SCC-E22W-A



AE-1C CHASSIS

MODELS OF THE SAME SERIES	
KV-X2553E/X2953E	KV-E2523E/E2923E
KV-C2553E/C2953E	KV-C2123E
KV-A2113E/A2513E	

SPECIFICATIONS

【KV-X2553E/X2953E】

Television system	B/G/H
Color system	PAL, SECAM, NTSC3.58, NTSC4.43
Stereo system	GERMAN /NICAM stereo
Channel coverage	VHF: E2-E12 UHF: E21-E69
	CABLE TV (1) : S1-S41
	CABLE TV (2) : S01-S05, M1-M10, U1-U10
Picture tube	HI-Black Trinitron tube
	Approx. 63 cm (25 inches)
	(Approx. 59 cm picture measured diagonally)
	110 ° degree deflection
	Approx. 72 cm (29 inches)
	(Approx. 68 cm picture measured diagonally)
	110 ° degree deflection

Inputs Outputs Terminals

REAR

21 pin Euro connector (CENELEC standard)	-Inputs for audio and video signals -Inputs for RGB -Outputs of TV video and audio signals
2/21-pin Euro connector	-Inputs for audio and video signals -Inputs for S-video -Outputs for video and audio signals (selectable)
Audio output(vartable)	-phono jacks

Video input phono jack

Audio inputs (L,R) phono jacks

S-video Inputs-4pin DIN

Headphone jack : stereo mini jack

Sound output	30 W + 30 W
Power consumption	104Wh (KV-X2553E)
	114Wh (KV-X2953E)

- Continued on next page -

MICROFILM

TRINITRON® COLOR TV

SONY®

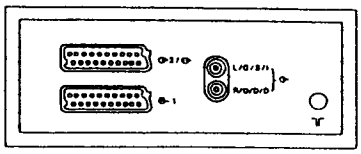
Dimensions incl.speakers	Approx. 575×488×487 mm (w/h/d) (KV-X2553E) Approx. 656×560×518 mm (w/h/d) (KV-X2953E)
Weight incl.speakers	Approx. 35kg (KV-X2553E) Approx. 51kg (KV-X2953E)

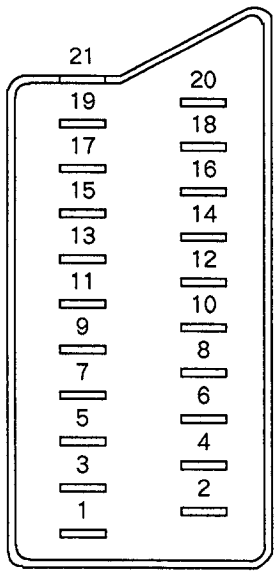
【RM-816】

Remote control system	infrared control
Power requirements	3V dc 2 batteries IEC designation R6 (size AA)
Dimentions	Approx. 75×221×23mm(w/h/d)
Weight	Approx. 230g (including batters)
Accessories supplied	IEC designation R6 batteries (2)
Supplied accessories	RM-816 Remote Commander (1) IEC designation R6 batteries (2)

Design and specifications are subject to change without notice.

21 pin connector (⏢1 ⏣2)





Pin No	1	2	Signal	Signal level
1	○	○	Audio output B (right)	Standard level : 0.5Vrms Output impedance : Less than 1kohm∗
2	○	○	Audio input B (right)	Standard level : 0.5Vrms Input impedance : More than 10kohms∗
3	○	○	Audio output A (left)	Standard level : 0.5Vrms Output impedance : Less than 1kohm∗
4	○	○	Ground (audio)	
5	○	○	Ground (blue)	
6	○	○	Audio input A (left)	Standard level : 0.5Vrms Input impedance : More than 10kohms∗
7	○	●	Blue input	0.7±3dB, 75ohms, positive
8	○	○	Function select (AV control)	High state (9.5−12V) : Part mode Low state (0−2V) : TV mode Input impedance : More than 10kohms Input capacitance : Less than 2nF
9	○	○	Ground (green)	
10	○	○	Open	
11	○	●	Green	Green signal : 0.7V±3dB, 75ohms, positive
12	○	○	Open	
13	○	○	Ground (red)	
14	○	○	Ground (blanking)	
15	○	−	Red input	0.7V±3dB, 75ohms, positive
	−	○	(S signal) croma input	0.3V±3dB, 75ohms, positive
16	○	●	Blanking input (Ys signal)	High state (1−3V) Low state (0−0.4V) Input impedance : 75ohms
17	○	○	Ground (video output)	
18	○	○	Ground (video input)	
19	○	○	Video output	1V±3dB, 75ohms, positive Sync : 0.3V (−3, +10dB)
20	○	−	Video input	1V±3dB, 75ohms, positive Sync : 0.3V (−3, +10dB)
	−	○	Video Input/Y (S signal)	1V±3dB, 75ohms, positive Sync : 0.3V (−3, +10dB)
21	○	○	Common ground (plug, shield)	

○ Connected ● unconnected (open) ∗at 20Hz−20kHz

4 Pin connector (⏣)

Pin No	Signal	Signal level
1	Ground	
2	Ground	
3	Y (S signal) input	1V±3dB 75ohm, positive Sync $0.3V^{-3}_{+10}$ dB
4	C (S signal) input	0.3V±3dB 75ohm, positive

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CAUTION

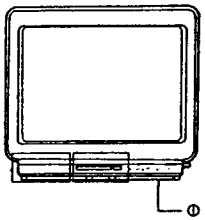
SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

SECTION 1
GENERAL

1-1. SWITCHING ON/OFF



After you have completed the basic preparation your TV is ready to be connected to the mains power supply (220/240V AC, 50Hz).

How to turn the TV on

Action	Result
Press ⏻ on the TV.	The TV will turn on. Note: If the screen remains blank, the TV may be in the standby mode. Press ○ or any number button on the commander to switch it on.

How to turn the TV off

A Temporarily	
Press ⏻ to enter standby mode.	The TV will be in standby. To return to the TV mode press ○
B Completely	
Press ⏻ on the TV.	The TV will turn off.

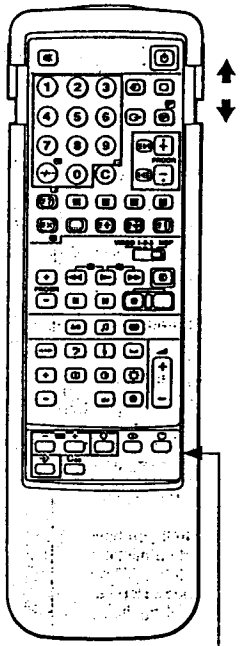
1-2. PRESETTING

After you have installed the TV you need to preset TV channels.

TV stations broadcast their channels at certain frequencies. You must preset these channels to programme numbers on the TV before you can watch the TV programmes.

There are 60 spaces for storing these channels.

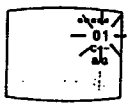
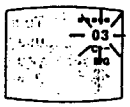
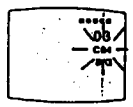
Slide open the full function side of the remote commander to reveal preset buttons.

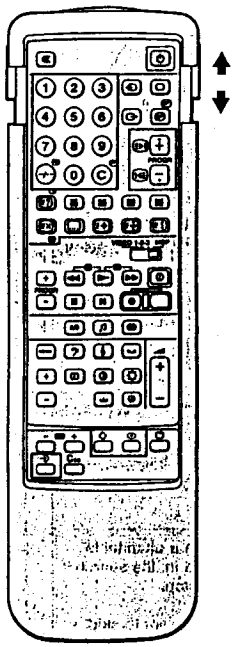


Note: These buttons should be used in preset mode only.

How to preset channels automatically

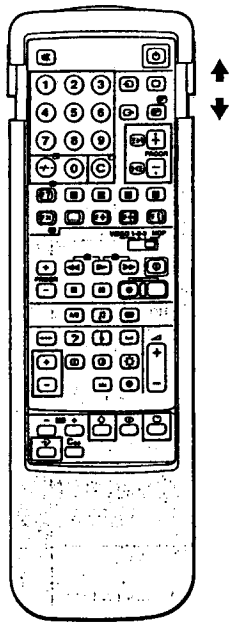
If you are unfamiliar with the channel numbers of the stations you wish to preset, use "How to preset channels automatically". If you are familiar with the channel numbers refer to "How to preset T.V. channels directly".

Action	Result
1 Press → to enter the preset mode.	 The programme number will start flashing.
2 Press PROGR + or - or the number buttons to select the programme number to which you want to preset a channel. Note To select a double-digit number, use the -/-- button. For example, if you want to choose 23, press -/--, 2, and then 3.	 The programme number changes
3 Press ⊞ + or - once to search forward or backward for channels.	 When a channel is tuned in, the search will stop. Note If you want to skip a channel, press ⊞ + or ⊞ –.
4 Press ◇ if you want to store the channel which is tuned in. Press → to exit preset mode without storing.	The channel is now stored and you have returned to TV mode.
5 Repeat steps 1 to 4 to store the other channels.	



How to preset channels directly

Action	Result
1 Press → to enter the preset mode.	The programme number will start flashing.
2 Press PROGR +/– or the number buttons to select the programme number on which you want to preset a channel. **Note** To select a double-digit number, use the -/-- button. For example, if you want to choose 23, press -/--, 2, and then 3.	The programme number changes.
3 Press C.	The indication "C--" starts flashing on the display.
4 Select the channel number with two digits (e.g. 04) by pressing the number buttons. **Note** Press the second number within 5 seconds after the first one, otherwise the operation will be cancelled.	The channel number changes. **Note** If you have made a mistake the letter "X" will appear. Repeat step 4 again.
5 Press ◇ to store the channel which is tuned in. Press → to exit the preset mode without storing.	The channel is now stored and you have returned to TV mode.
Repeat steps 1 to 5 to store the other channels.	



How to Name a Station

You can use up to five characters to "name" a channel or station (i.e. BBC1).

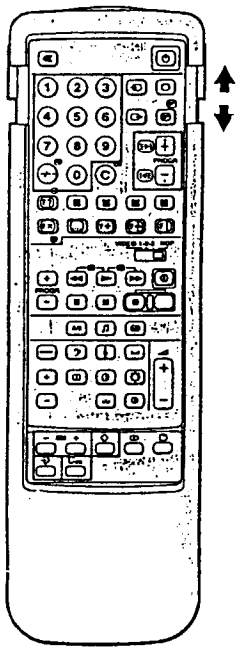
Action	Result
1 Select a programme number you want to name by pressing the PROGR +/– or the number buttons	The selected programme number will appear.
2 Press →.	The programme number starts flashing.
3 Press C.	The first column of the station name indication will start flashing.
4 Press + or – to select a letter in the alphabet, a number, or a blank space.	The letters of the alphabet, numbers and the space ("–") will appear sequentially.
5 Press C.	The first character is now set and the second column will start flashing.
6 Repeat steps 4 and 5 to set each letter.	
7 Press ◇.	The channel name is now stored and you have returned to TV mode.

How to tune in a channel temporarily

You can tune in a channel temporarily, if it has not been preset.

Action	Result
1 Press C.	The indication "C" appears on the screen.
2 Select the channel number with two digits by pressing the number buttons (e.g. for channel 4, first press 0, then 4.)	The channel is received, but it is not stored to any programme number.

1-3. BASIC TV OPERATION



How to Skip Programmes

Using the PROGR +/– buttons you can skip unused programme channel numbers. However, the skipped numbers may still be called up using the number buttons.

Action	Result
1 Press ⇢ to enter the preset mode.	The programme number will start flashing.
2 Select the programme number that you want to skip by pressing PROGR +/– or the number buttons.	The programme number changes.
3 Press Coo.	The lowest channel number appears under the programme number.
4 Press ◇.	The channel is now stored and you have returned to TV mode.
Repeat steps 1 to 4 to skip other programme numbers.	

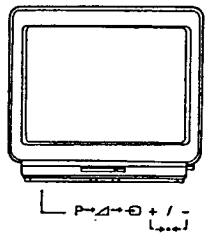
How to Fine Tune Manually

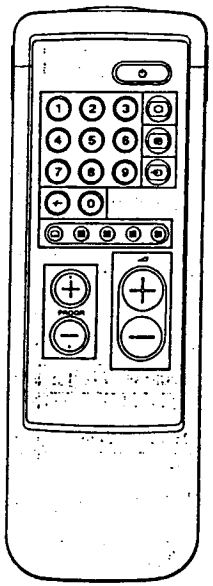
If the picture is distorted, you can fine tune the channel manually.

Action	Result
Press ⊞ + or – repeatedly until the picture looks normal.	The indication ← F → appears on the screen.
Press ⇢ to enter the preset mode.	The programme number starts flashing.
Press ◇.	The fine tuning is stored.

Note: Normal tuning can be restored if you preset the channel once more.

Note: Press ⊥ on door to open.





This section introduces you to the basic control functions which are available on the simple side of the remote commander.

How to Select Programmes

Before you can select programmes make sure that you have preset channels.

Action	Result
Press PROGR +/– or the number buttons. To select a double-digit number, use the -/-- button. For example, if you want to choose 23, press -/--, 2, and then 3.	23 The selected programme is displayed.

How to Adjust the Volume

Action	Result
Press ◿ + or –.	The volume markers will appear. and are adjusted accordingly.

How to Use additional features

Basic teletext operation

Select

- The Ⓣ button to view the teletext.
- The ▢ button to request subtitles (P.888).
- One of the coloured buttons for fastext operation.
- The ▢ button to return to TV mode.

For details about teletext operation.

How to operate with the buttons on the TV

You can also select programmes and adjust the volume using the P→◿→⊖ and →•← +/– buttons on the front of the TV.

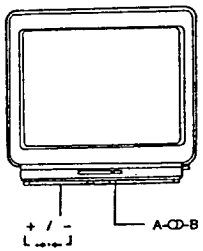
For operation, first press the P→◿→⊖ button repeatedly so that the P (for programme) or ◿ (for volume) indication appears on the screen, and then adjust with the →•← +/– buttons.

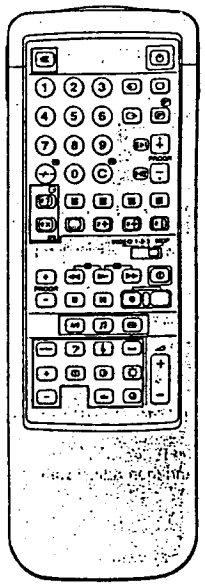
Note: To restore to factory set level press →•← +/- together.

How to view the video input picture

Press ⊖ To return to the TV mode, press ▢. For further details,

1-4. ADVANCED TV OPERATION





This section shows you how to use convenient features and how to adjust the picture and sound to your taste.
Use the full-function side of the Remote Commander.

How to use on-screen display and special sound features

You can enjoy the following convenient features.

How to	Action	To resume normal picture/sound
Display on-screen indications	Press ⊡	Indications disappear after some seconds
Display programme numbers	Press ⊡ twice	Press ⊡ twice again.
Mute the sound	Press 🔇.	Press 🔇 again.
Select a language in bilingual programmes.	Press A/B. The selected mode of the A-CD-B indicator on the TV lights up.	Press A/B.
Set the sound for music listening.	Press ♫.	Press ♫ again.
Use the space sound (special acoustic effect)	Press ⊕	Press ⊕ again.
Request the time	Press ⓘ.	Press ⓘ again.

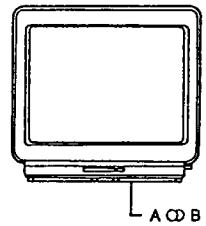
How to adjust the picture and sound

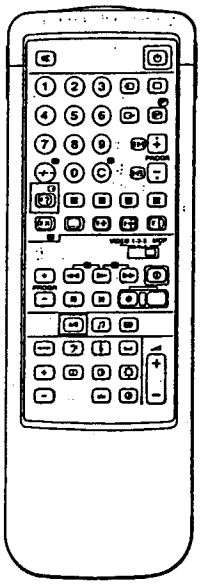
Although the picture and sound have been adjusted at the factory, you might want to adjust them to your own taste. To do this, please follow the steps below.

To Adjust:	Press:	Then:	Result: (+ ⟷ –)
Picture:			
Colour Intensity	◔	+ / –	More ⟷ Less
Picture Contrast	◑		More ⟷ Less
Brightness	☼		Bright ⟷ Dark
Hue (for NTSC only)			Reddish ⟷ Greenish
Picture Sharpness (only for KV-X2953E)			Sharp ⟷ Soft
Sound:			
Bass		+ / –	More ⟷ Less
Treble			More ⟷ Less
Balance			More Right ⟷ More Left

To reset the picture and sound to factory set levels press →·←.

On the set:
Press →·← +/– buttons simultaneously.





How to select a NICAM broadcast

This Sony TV has been designed to select Nicam broadcasts when available. Whenever a Nicam broadcast is received, the ⋈ symbol appears briefly on the screen. When the Nicam programme ends, or you switch channels to one without Nicam, the ⋈ symbol appears. To check if the channel you are watching is receiving Nicam, press the on screen display button ⊡ on the full function side of the remote commander.

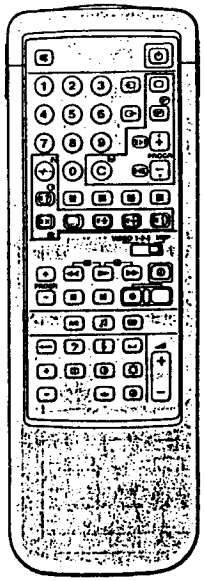
How to select the sound of your choice

Nicam programmes can be broadcast in two ways. You may select the sound you want to hear in either of these, by pressing the ⊟ button on the full function side of the remote commander.

Service being broadcast	Action	The sound you hear	Indication on the TV A CD B
Nicam		Stereo/ Mono (2 channel)	☼ ☼
	Press A/B	Normally broadcast sound	▭ ▭
	Press A/B again to return to stereo / Mono (2-channel)		
Bilingual		Language A	☼ ▭
	Press A/B	Language B	▭ ☼
	Press A/B	Normally broadcast language	▭ ▭
	Press A/B again to return to language A		

* Depending on availability of service.

1-5. TELETEXT OPERATION



TV stations broadcast teletext programmes via the TV channels. To receive teletext programmes, use the buttons indicated in green on the full side of the Remote Commander.
With the simple side of the Remote Commander, only the basic operation is possible.

How to View the Teletext

Action	Result
1 Select the channel which carries the teletext service you wish to see.	The channel changes on the screen.
2 Press ⓫.	If the teletext signal is not broadcast, then p100 is displayed.
3 Input three digits for the page number using the number buttons. **Note** If you make a mistake, type in any three digits, then re-enter the correct page number.	The numbers are entered on the screen. The requested page will appear in a few seconds.
To return to the TV mode. Press ⓪. **To change the teletext channels** First press ⓪ to return to the TV mode, then repeat steps 1 to 3.	

Note
If the signal of the TV channel is weak, teletext errors may often occur.

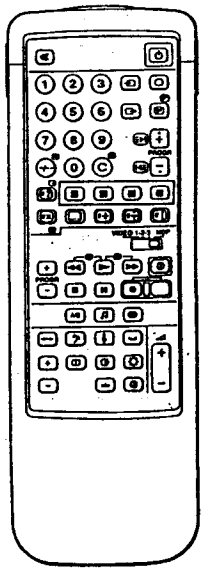
How to Use the Advanced Features of Teletext

How to	Action	Result (On-screen display)
Request the index page.	Press ⓭ (INDEX).	The index page appears.
Request the subtitle page (p888).	Press ⓪.	The subtitle page is displayed (p888).
Access the next or preceding page.	Press ⓮ (PAGE +) or ⓯ (PAGE –).	The next or preceding page appears.

How to	Action	Result
Superimpose the teletext display on the TV programme.	Press ⓬ once if you are in text mode, or press ⓬ twice if in TV mode. To return to the normal teletext display press ⓬ again.	The teletext displays are superimposed on the TV programmes.
Prevent a teletext page from being updated or changed.	Press ⓫ (HOLD). To resume normal teletext reception, press ⓬ (TEXT/MIX).	The HOLD symbol (⓫) appears on the screen and the chosen sub-page is held until you cancel.
Enlarge the teletext display.	Press ⓭ once to enlarge the upper half. Press twice to enlarge the lower half. Press again to restore the normal display.	The upper half is enlarged.
Reveal concealed information (e.g. answers to a quiz).	Press ⓱ (REVEAL). Press again to conceal the information.	The information is revealed.
Watch the TV programme while waiting for a requested page to be displayed.	1. Request a new page.	The numbers are entered.
	2. Press ⓳ (TEXT CL).	The TV programme is displayed, and the requested page number and other teletext data appear at the top of the screen.
	3. When the requested page has been captured, the page number remains and the other data disappears.	
	4. Press ⓬ to view this page.	The requested page is displayed.
Have a requested page displayed at a pre-determined time.	1. Request a desired page.	The requested page is displayed.
	2. Press ⓴ (TP ON).	"T*****" appears at the bottom of the screen.
	3. Enter the time you want to have the page displayed with four digits using the number buttons. (For example, enter 0730 for 7:30 AM.)	The time is entered on the screen.
	4. Press ⓳ (TEXT CL) to watch the TV programme until the requested time.	At the requested time, the page number will be displayed at the top of the screen, to view this page, press ⓬.
	To cancel the request Display the teletext page, then press ㉑ (TP OFF).	The request is cancelled. To resume TV mode press ⓪.

Some of the features may not be available depending on the Teletext service.

1-6. OPTIONAL CONNECTIONS / OPERATIONS



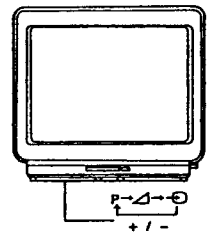
How to use the FASTEXT Feature

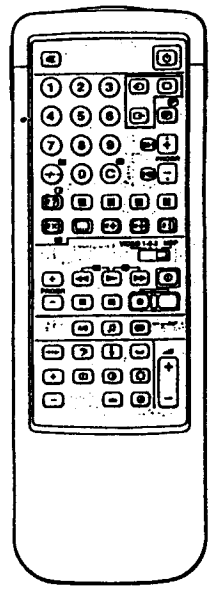
FASTEXT feature allows you to access pages quickly with one key operation. When a FASTEXT page is broadcast, a colour coded menu appears at the bottom of the screen. Each coloured prompt corresponds to the coloured buttons on either side of your Remote Commander.

Operation

Action	Result
Press one of the coloured buttons which correspond to the coloured prompt on the teletext.	The selected teletext page appears.

Note
Correct FASTEXT operation depends on the necessary signals sent from the TV station.





How to view the video input picture

You can view the picture of video equipment connected to the input terminals by selecting the input mode.

Operation

Action	Result
Press repeatedly to select the desired input.	1 — Symbol for the selected input appears. (See the table below.)
To return to the TV mode, press the button.	

Input modes

	Result
1	Audio/video input through the 1 connector.
	RGB input through the connector.
2	Audio/video input through the 2/ connector.
2	S video input (from a VTR equipped with an S video output) through the 2/ connector.
3	Audio/video input through and jacks on the front.
3	S video input through the connector on the front (4-pin connector)
You can also select the input mode using the P button on the TV. In this case, first select and then press +/– buttons to select the input.	

How to select the Output

The 2/ connector outputs four kinds of audio/video signals. You have to select one of them as follows.

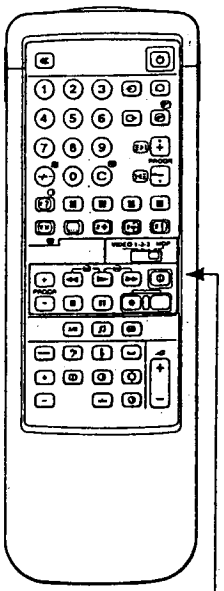
Operation

Action	Result
Press repeatedly to select the desired input.	1 — Symbol for the selected output appears. (See the table below.)

Output modes

Symbol	Output from
1	The audio/video signal from the 1 connector
2	The audio/video signal from the 2/ connector
3	The audio/video signal from the connectors.
TV	The audio/video signal from the aerial terminal.

1-7. ADDITIONAL REMOTE COMMANDER OPERATION



Buttons to operate other Sony Video equipment

How to Control Other Sony Video Equipment

By switching the VIDEO 1/2/3, MDP selector, you can operate most Sony video equipment (Beta VTR, 8mm VTR, VHS VTR, and video disc player).

1 Set VIDEO 1/2/3, MDP selector according to the desired video equipment.

VIDEO 1: Beta or ED Beta VTR
VIDEO 2: 8mm VTR
VIDEO 3: VHS VTR
MDP: Video disc player

2 Use the buttons in the indicated area to operate video equipment.

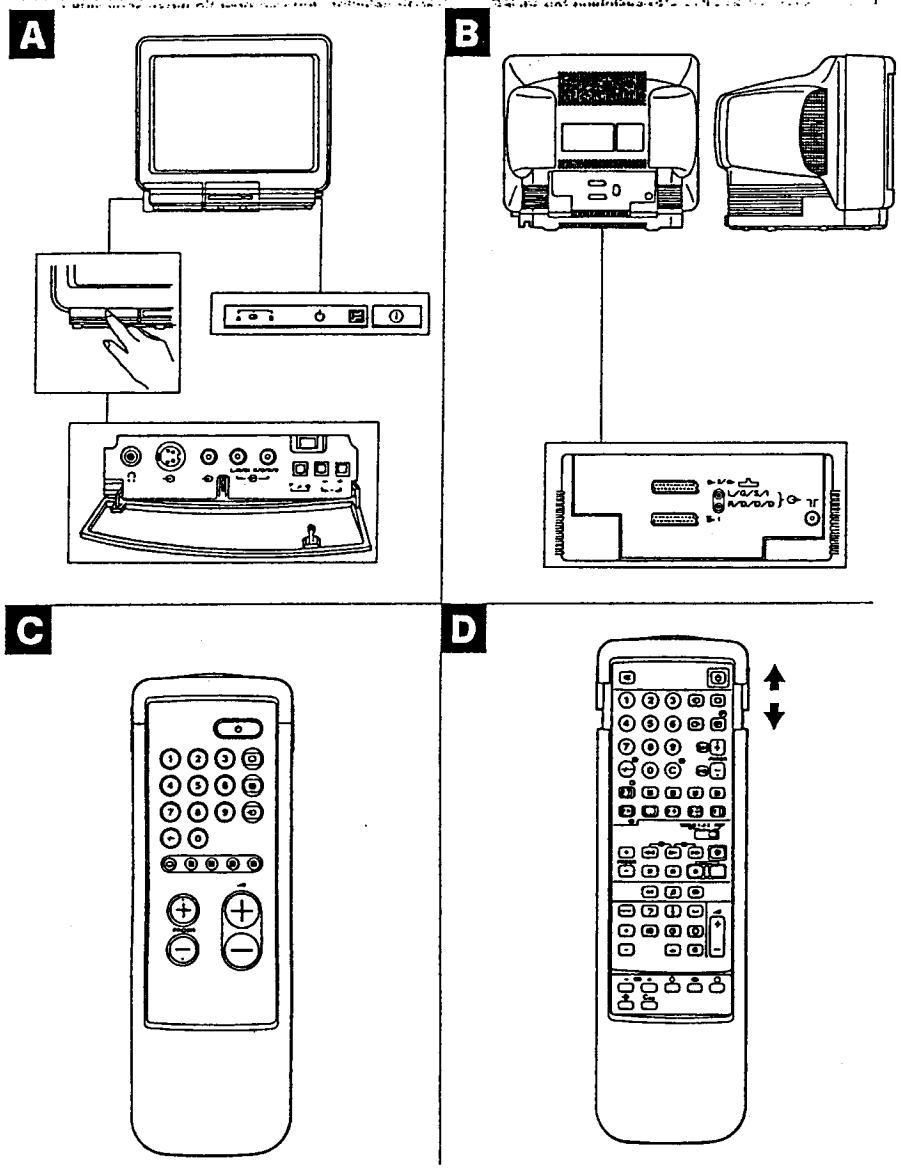
Note
When you use ● button, be sure to press this button and the one on the right simultaneously.

Notes

- If your video equipment is furnished with COMMAND MODE selector, set the selector to the same position as the VIDEO 1/2/3, MDP selector on the supplied Remote Commander.
- If the equipment does not have a certain function, the corresponding button on the Remote Commander will not work.

1-8. ADDITIONAL INFORMATION

Parts Identification



This section briefly describes the buttons and controls on the TV set and on the Remote Commander.
For more information.

A TV set – Front

Sign	Name
⏻	Main power switch
⏻	Standby indicator
A-◯-B	NICAM indicators
∩	Headphones jack (stereo minijack)
⊖⊖	Input jacks (S-video /video/audio)
P→◿→⊖	Function selector (Programme/ volume/input)
- +	Adjustment buttons for function selector

B TV set – Rear

Sign	Name
⊖2/⊖9	21-pin Euro-AV connector (S-video/video input, TV/video output)
⊖	21-pin Euro-AV connector (RGB/ video input, TV output
⊖	Audio output jacks (phono jacks)
⊤	Aerial terminal (IEC type)

C Remote Commander – simple side

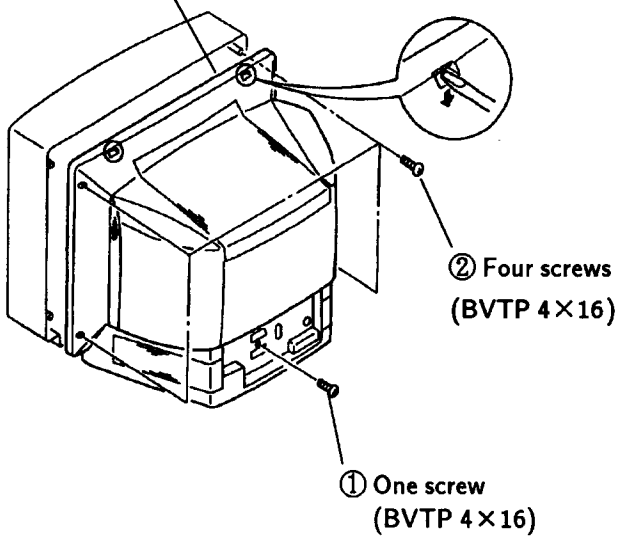
Sign	Name
⊖	Input mode selector
▤	Teletext button
■■■■	Fastext buttons
▢	TV mode selector
⏻	Standby button
1,2,3,4,5, 6,7,8,9, and 0	Number buttons
-/--	Double-digit entering button
◿+/-	Volume control buttons
PROGR +/-	Programme selector

D Remote Commander – full function side

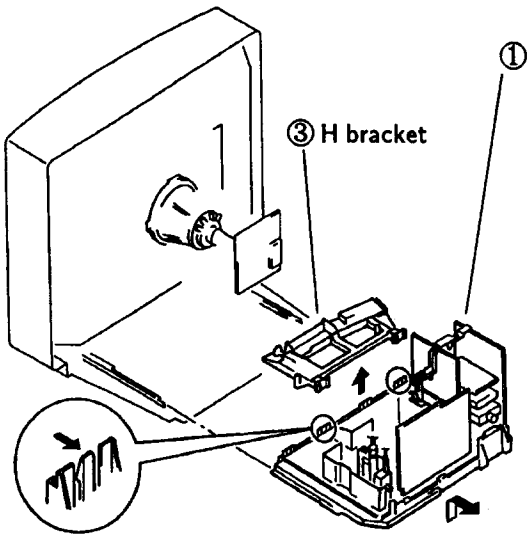
Sign	Name
🔇	Mute on/off button
⏻	Standby button
1,2,3,4,5, 6,7,8,9, and 0	Number buttons
⊖	Input mode selector
▢	TV power on/TV mode selector button
⊖	Output mode selector
▤	Teletext button
♫	Music button
A/B	Selector for NICAM
-/--	Double-digit entering button
C	Direct channel entering button
⊖⊖	Space sound button
⊙	Request time display
?✕▭◉▶▮ ◉◿⊕⊕⊕	Teletext operation buttons
■■■■	Fastext buttons
⊖	On-screen display button
→•←	Picture and sound adjustment reset button
◿+/-	Volume control
PROGR.+/-	Programme selector
◐◑☼◔◪ ◿◪◔+/-	Picture and sound controls
VIDEO 1/2/3, MDP	Video equipment selector
◀◀ ▶▶ ■ ❚❚ ●	Video equipment operation buttons
Coo	Programme number clear button
⊖	Channel preset button
- ⊕⊖ +	Tuning buttons
◇	Channel store button
▢	Station label button

SECTION 2
DISASSEMBLY

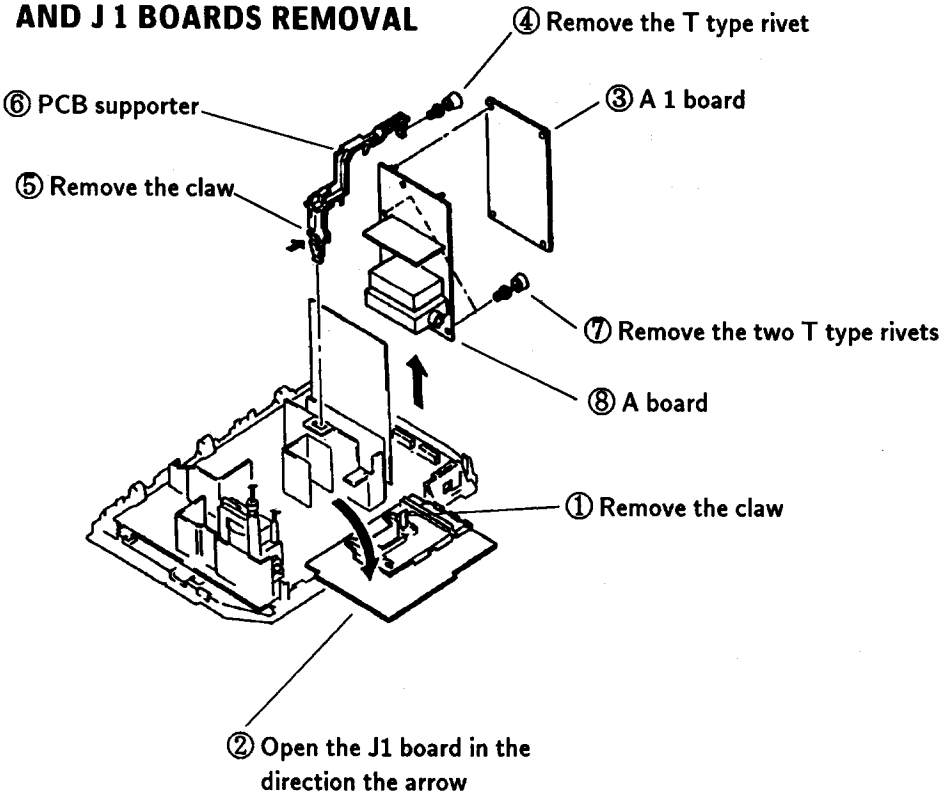
2-1. REAR COVER REMOVAL


④ Remove the rear cover
③ Remove two claws push diagonally from the above using a flat head screwdriver.
② Four screws (BVTP 4×16)
① One screw (BVTP 4×16)

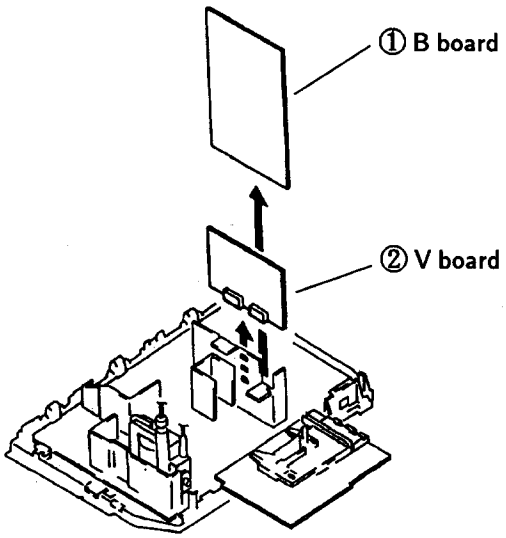
2-2. CHASSIS ASSEMBLY REMOVAL


① After the assembly of the main chassis, lift and pull out the rear part of the main chassis toward the rear.
③ H bracket
② Push the two claws of the main chassis in the direction of the arrow and remove the H bracket upwards.

2-3. A, A1 AND J 1 BOARDS REMOVAL

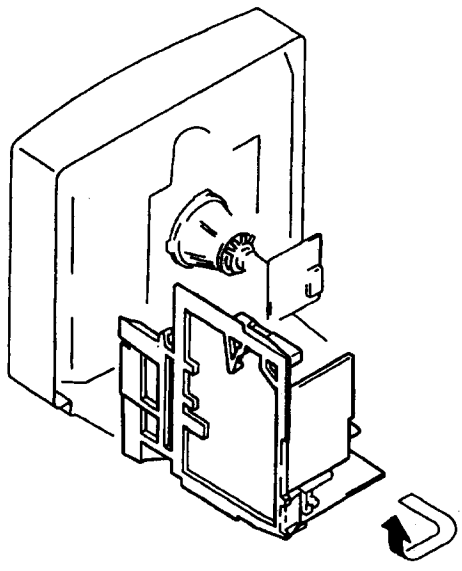

④ Remove the T type rivet
⑥ PCB supporter
③ A 1 board
⑤ Remove the claw
⑦ Remove the two T type rivets
⑧ A board
① Remove the claw
② Open the J1 board in the direction the arrow

2-4. B AND V BOARDS REMOVAL



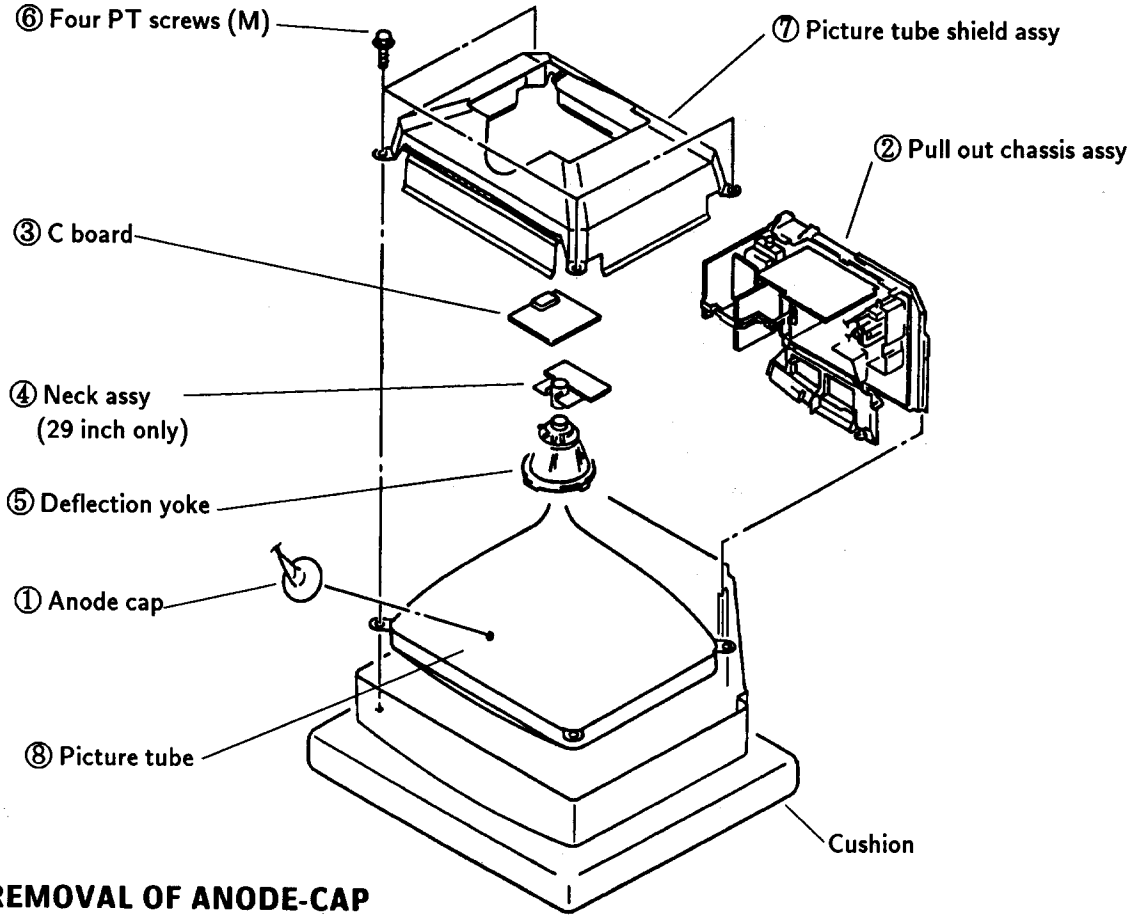
Note : 10 pin extension cable (S-0945-001-0)

2-5. SERVICE POSITION



① Remove main chassis assembly in the direction of the arrow.

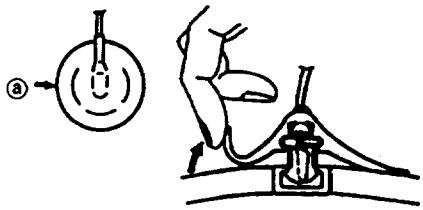
2-6. PICTURE TUBE REMOVAL



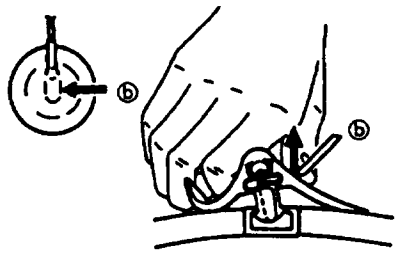
• REMOVAL OF ANODE-CAP

Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT chield or carbon painted on the CRT, after removing the anode.

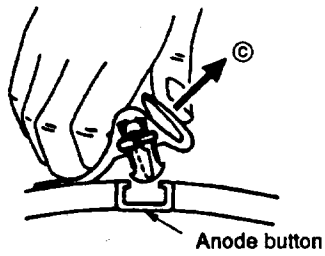
• REMOVING PROCEDURES



① Turn up one side of the rubber cap in the direction indicated by the arrow ⓐ.



② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⓑ.



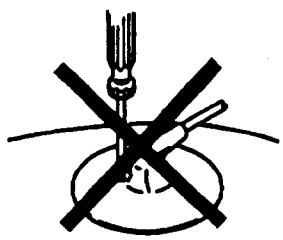
③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow ⓒ.

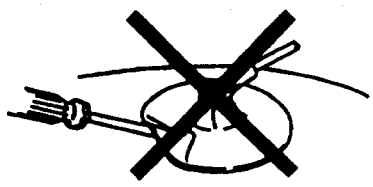
• HOW TO HANDLE AN ANODE-CAP

① Don't hurt the surface of anode-caps with sharp shaped material!

② Don't press the rubber hardly not to hurt inside of anode-caps!
A material fitting called as shatter-hook terminal is built in the rubber.

③ Don't turn the foot of rubber over hardly!
The shatter-hook terminal will stick out or hurt the rubber.





SECITON 3
SET-UP ADJUSTMENTS

- When complete readjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there is specific instruction to the contrary, carry out these adjustments with the rated power supply.
- Unless there is specific instruction to the contrary, set the controls and switches this way :
  - ◑ Contrast ·····80%
    (or remote control normal)
  - ☼ Brightness ·····50%

- Carry out the following adjustments in this order:
  1. Beam landing
  2. Convergence
  3. Focus
  4. White balance

Note : Testing equipment required
1. Color bar/pattern generator
2. Degausser
3. DC power supply
4. Digital multimeter
5. Oscilloscope

Preparations :
- In order to reduce the influence of geomagnetism on the set's picture tube face it east or west.
- Switch on the set's power and degauss with the degausser.

3-1. BEAM LANDING

1. Input the white signal with the pattern generator.
   Contrast
   Bightness } normal
2. Position neck ass'y as shown in Fig 3-2. (29 inch only)
3. Set the pattern generator raster signal to red.
4. Move the deflection yoke to the rear and adjust with the purity control so that the red is at the center and the blue and the green take up equally sized areas on each side. (See Figures 3-1 through 3-3.)
5. Move the deflection yoke forward and adjust so that entire screen is red. (See Figure 3-1.)
6. Switch the raster signal to blue, then to green and verify the condition.
7. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws.
8. If the beam does not land correctly in all the corners, use a magnet to adjust it. (See Figure 3-4.)

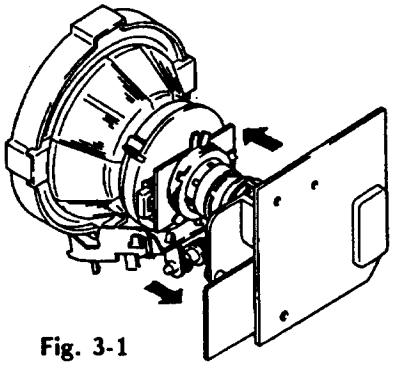
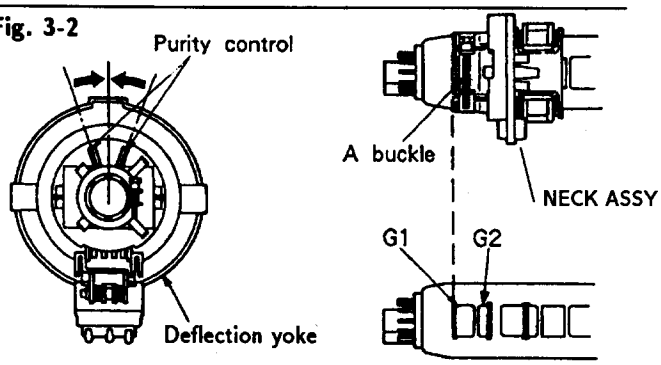


Fig. 3-1

Fig. 3-2



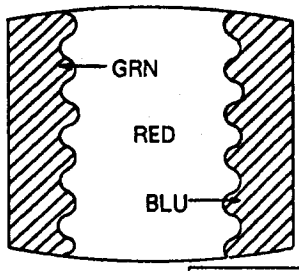


Fig. 3-3

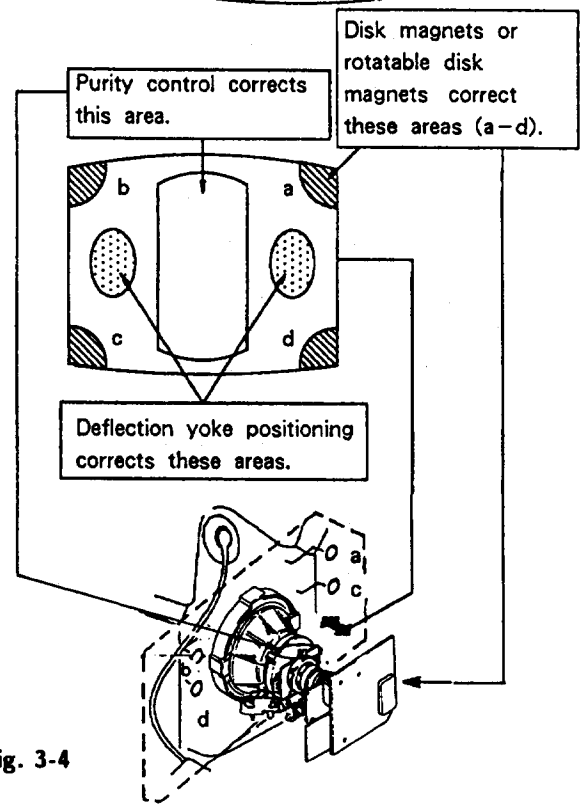


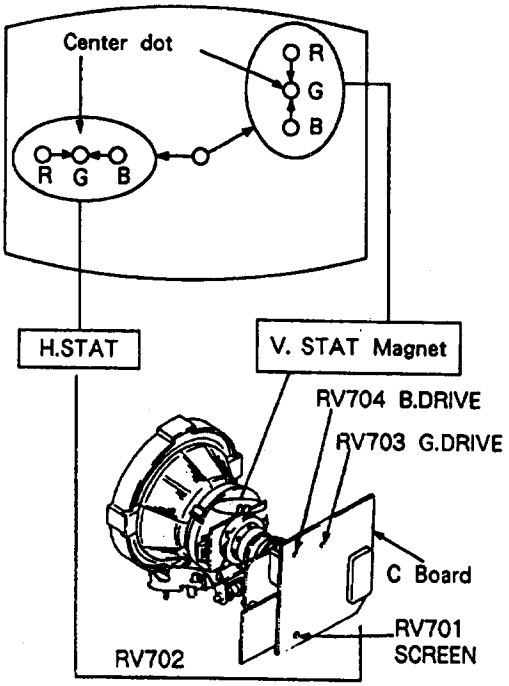
Fig. 3-4

3-2. CONVERGENCE

Preparations :

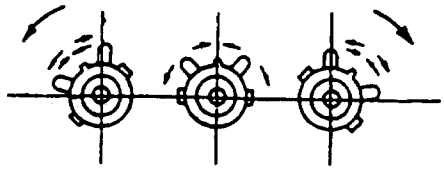
- Before starting this adjustment, adjust the focus, horizontal size, and vertical size.
- Minimize the brightness setting.
- Provide dot pattern.

(1) Horizontal and vertical static convergence

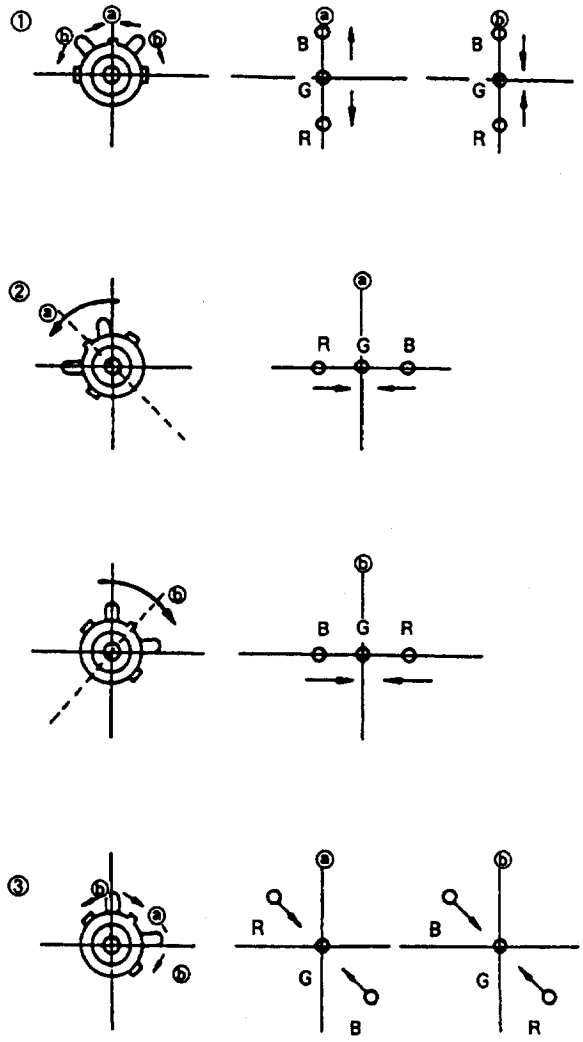


1. (Moving horizontally), adjust the H.STAT control so that the red, green, and blue points are on top of each other at the center of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green, and blue points are on top of each other at the center of the screen.
3. If the H.STAT variable resistor cannot bring the red, green, and blue points together at the center of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V. STAT magnet in the manner given below.
   (In this case, the H.STAT variable resistor and the V.STAT magnet influence each other)

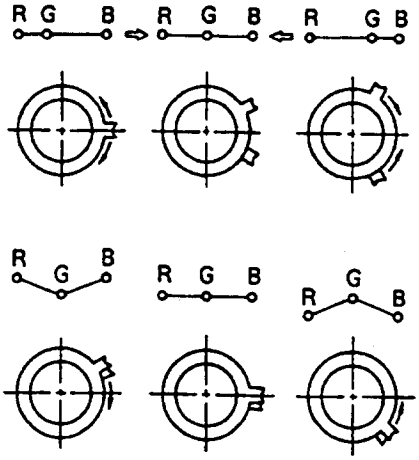
- Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.

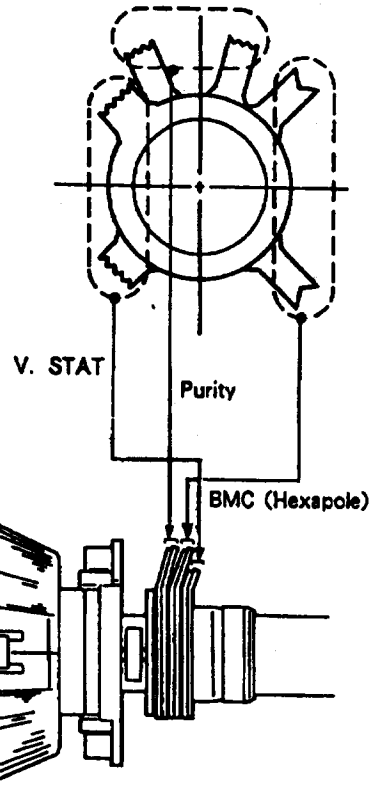


4. If the V.STAT magnet is moved in the direction of the ⓐ and ⓑ arrows, the red, green, and blue points move as shown below.



- Operation of BMC (Hexapole) Magnet



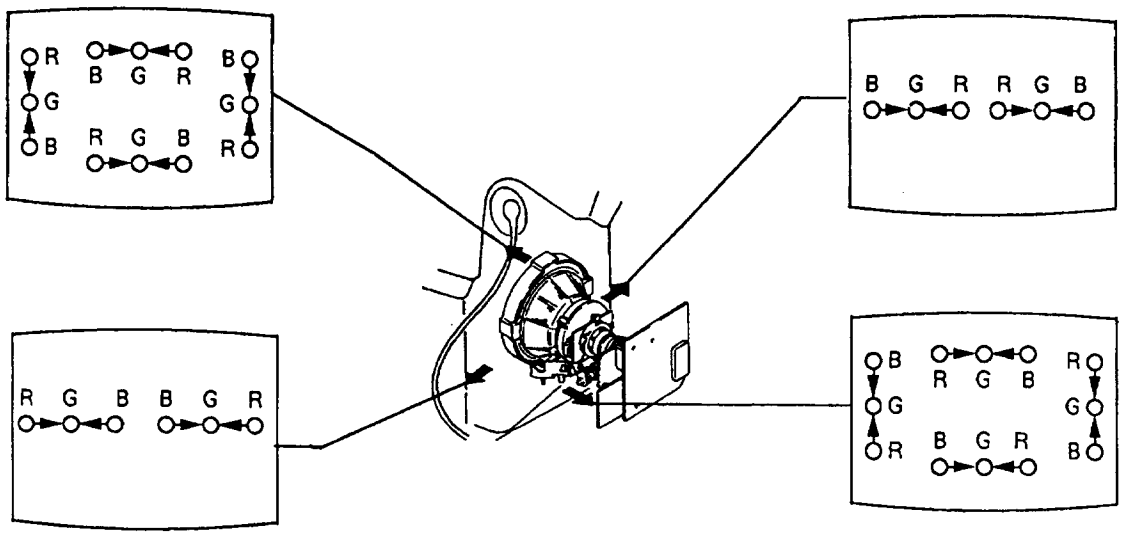


- The respective dot positions resulting from moving each magnet interact, so be sure to perform adjustment while tracking.
  Use the H.STAT VR to adjust the red, green, and blue dots so they coincide at the center of screen (by moving the dots in the horizontal direction).

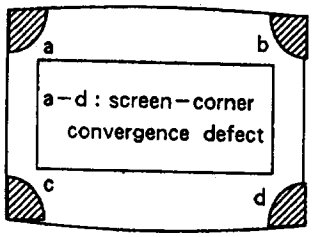
(2) Dynamic convergence adjustment
Preparations :

Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence.

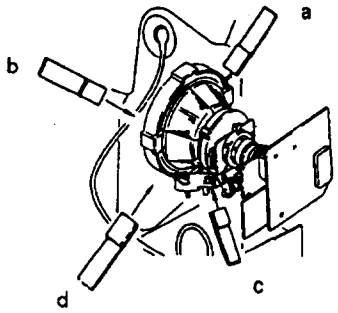
1. Slightly loosen the deflection yoke screws.
2. Remove the deflection yoke spacer.
3. Move the deflection yoke as shown in the figure below and optimize the convergence.
4. Tighten the deflection yoke screws.
5. Install the defelection yoke spacer.



(3) Screen corner convergence



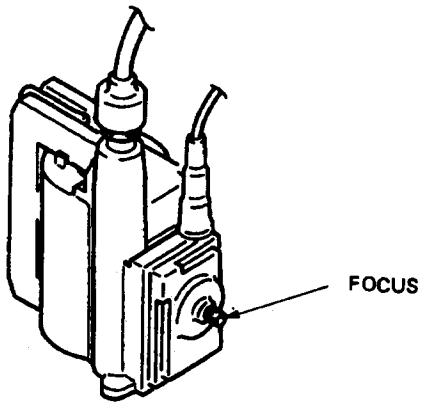
Install the permalloy assembly for the section with faulty.



Permalloy

3-3. FOCUS

Adjust the focus to optimize the screen.



3-4. WHITE BALANCE

[Screen G2 setting]

1. Input the dot signal from the pattern generator.
2. Set the picture brightness control to its lowest level.
3. Apply 170V DC to the R, G, and B cathodes with an external power supply.
4. While watching the picture, adjust G2 control RV701 (Screen) to the point just before the return lines disappear.

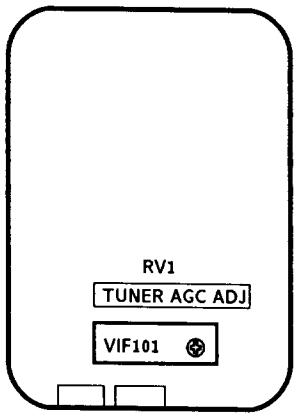
[White balance adjustment]

1. Input an all-white signal from the pattern generator.
2. Set the picture brightness and color controls to their normal levels.
3. Use the RV704 (B Drive) and RV703 (G Drive) to adjust white balance.

In the adjustments below, have the picture color and brightness settings at their normal levels unless there is a specific instruction to the contrary.

SECTION 4
CIRCUIT ADJUSTMENTS

4-1. A BOARD ADJUSTMENTS

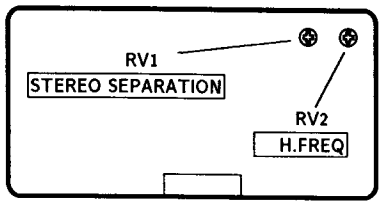


A BOARD (COMPONENT SIDE)

TUNER AGC ADJUSTMENT (VIF101, RV1)

1. Align with an appropriate signal between stations.
2. Adjust RV1 so that snow noise and cross modulation just disappear from the picture.

IFG5.5S SIF



IFG5.5S SIF -component side-

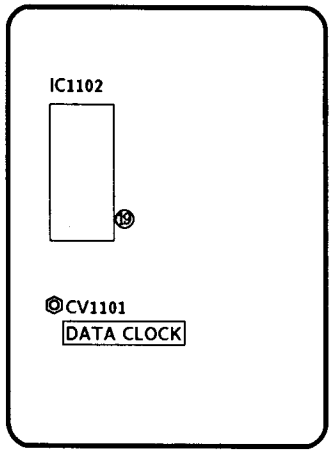
STEREO SEPALATION ADJUSTMENT (RV1)

1. Input stereo signals. (L-CH 400Hz, R-CH 1KHz)
2. Check the stereo indicator.
3. Connect on oscilloscope to pin⑧ (CH1) of CN1 through band pass filter of 1KHz
4. Adjust RV1 so that 1KHz voltage goes down to the minmum.

H FREQ (RV2)

1. Input a PAL COLOR BAR signal, then connect a jumper between pin⑫ IC4 and GND.
2. Connect a frequency counter to pin④ IFG5.5S (HP) of CN1 through a probe of 10 : 1.
3. Adjust RV2 (H.FREQ) 15.625±50Hz.
4. After adjustment, remove the jamper.

4-2. A1 BOARD ADJUSTMENT

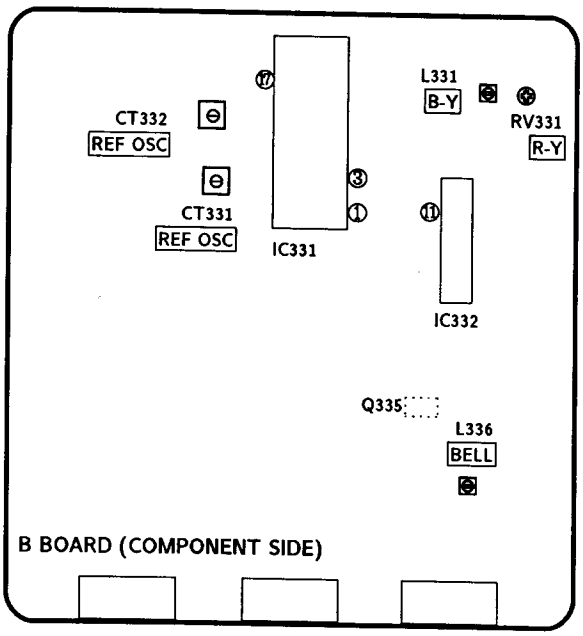


A1 BOARD (COMPONENT SIDE)

DATA CLOCK Adjustment (CV1101)

1. Tune in a no signal.
2. Connect a frequency counter to pin ⑲ of IC1102 (PCLK) through a probe of 10:1.
3. Adjust CV1101 (DATA CLOCK) so that frequency becomes 728.022KHz±1Hz.

4-3. B BOARD ADJUSTMENTS



REFERENCE OSCILLATOR ADJUSTMENT (CT332 8.8MHz)

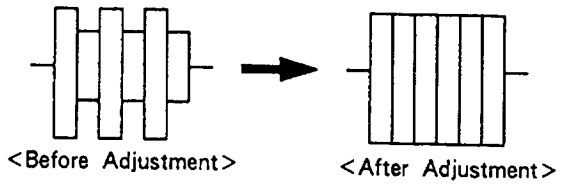
1. Input a PAL color bar signal.
2. Ground pin ⑰ of the IC331.
3. Adjust CT332 to obtain synchronization.

REFERENCE OSCILLATOR ADJUSTMENT (CT331 7.16MHz)

1. Input an NTSC3.58 color bar signal.
2. Ground pin ⑰ of IC331.
3. Adjust the CT331 to obtain synchronization.
4. Remove the jumper grounding pin ⑰ of IC331.

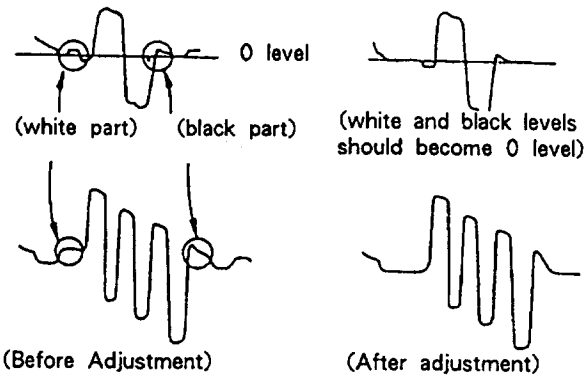
BELL FILTER ADJUSTMENT (L336)

1. Input a SECAM color bar signal.
2. Connect the oscilloscope to the emitter of Q335.
3. Adjust L336 so that the waveform is flat.

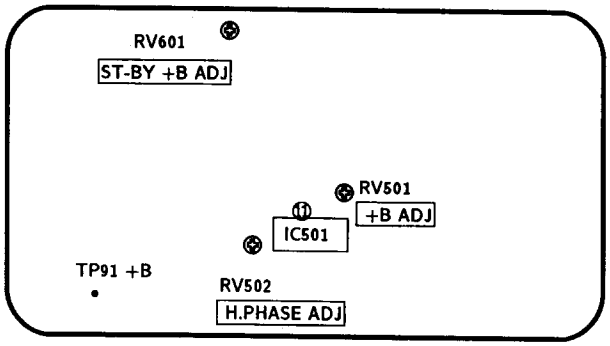


DISCRIMINATION ADJUSTMENTS (RV331 and L331)

1. Input a SECAM color bar signal.
2. Connect the oscilloscope to pin ① of IC331.
3. Adjust RV331 until the white and black sections of the waveform at pin ① are at the 0 level.
   Connect the oscilloscope to pin ③ of IC331.
4. Adjust L331 until the white and black sections of
5. the waveform at pin ③ are at the 0 level.



4-4. D BOARD ADJUSTMENTS



D BOARD (COMPONENT SIDE)

+B ADJUSTMENT (RV501)

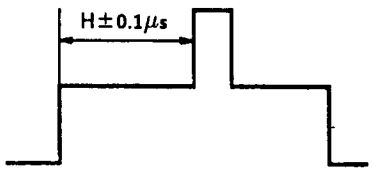
1. Connect the digital multimeter to TP91.
2. Adjust RV501 to obtain 135±0.2V.

ST-BY +B ADJUSTMENT (RV601)

1. Put the system into ⏻ standby mode (remote commander).
2. Connect the digital multimeter to TP91.
3. Adjust RV601 to obtain 135±3V.
4. Take the system out of ⏻ standby mode (remote commander).

H.PHASE ADJUSTMENT (RV502)

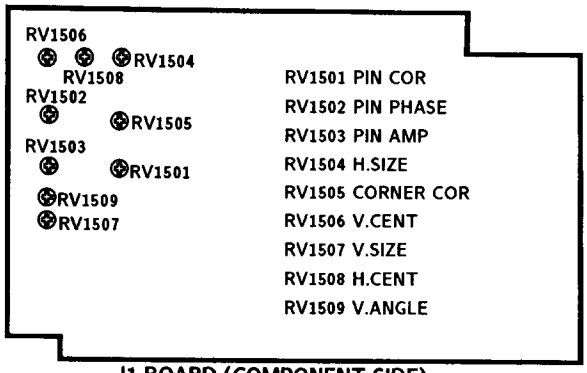
1. Input a PAL color bar signal.
2. Set the picture and brightness controls to their normal levels.
3. Set RV1508 (H.CENT) to its mechanical center.
4. Connect the oscilloscope to pin ⑪ (SCP) of IC 501.
5. Rotate RV502 to adjust to H±0.1μs.



Standard of H. PHASE

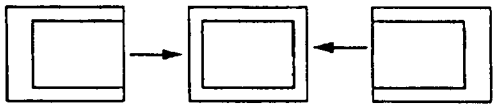
Model Size	H
25″	5.1μs
29″	5.5μs

4-5. J1 BOARD ADJUSTMENTS

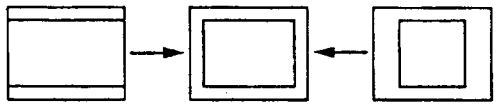


J1 BOARD (COMPONENT SIDE)

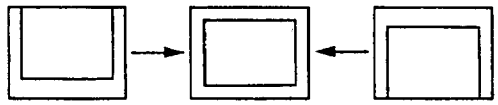
RV1508
H. CENT (HORIZONTAL CENTER)



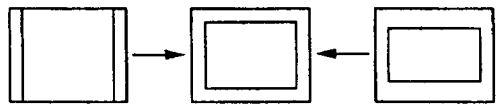
RV1504
H. SIZE (HORIZONTAL SIZE)



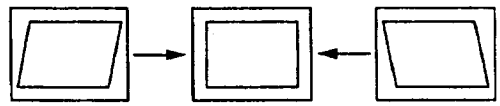
RV1506
V. CENT (VERTICAL CENTER)



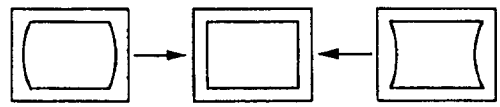
RV1507
V. SIZE (VERTICAL SIZE)



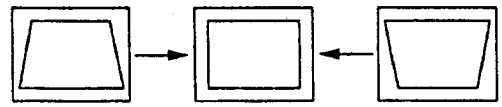
RV1509
V. ANGLE (VERTICAL ANGLE)



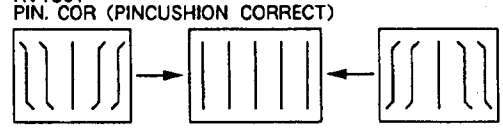
RV1503
PIN AMP (PINCUSHION AMPLIFIER)



RV1502
PIN PHASE (PINCUSHION PHASE)

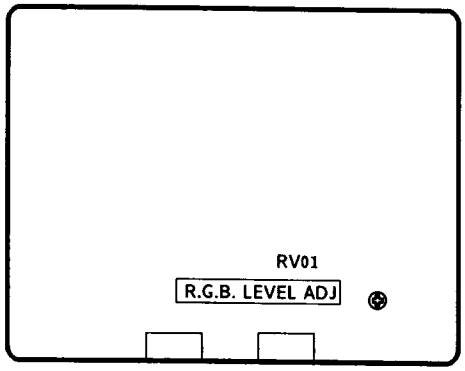


RV1501
PIN. COR (PINCUSHION CORRECT)



RV1505
CORNER. COR (CORNER CORRECT)

4-6. V BOARD ADJUSTMENT



V BOARD (COMPONENT SIDE)

RGB LEVEL ADJUSTMENT (RV01)

1. Maximize the picture setting.
2. Adjust RV01 so that the RGB output is 0.75V.

4-7. SECONDARY ADJUSTMENTS

SUB BRIGHTNESS ADJUSTMENT

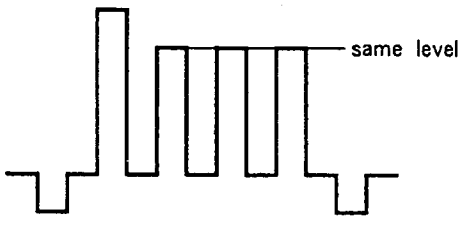
1. Set the system to receive a test pattern.
2. Press → • ← on the remote commander to put the system into normal mode.
3. Switch off the power.
4. While depressing the adjusting buttons + and − simultaneusly, turn on the power. (SUB mode is obtained)
5. Minimize the ◑ contrast setting.
6. Adjust the ☼ brightness control so that the gray scale 0 IRE section is cut off completely and the 20 IRE section is barely glowing.
7. Depress the ◇ (store) button of the remote commander.
   (SUB mode is released)

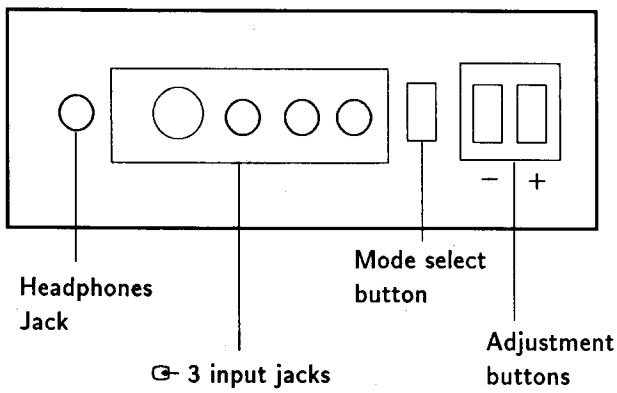
If there is no test color pattern

1. Set the system to receive a color pattern.
2. Press → • ← on the remote commander to put the system into normal mode.
   Set the ◕ color to its normal state.
3-5. Steps are the same as above.
6. Since 20 IRE is nearly blue, adjust the ☼ brightness control so that the blue barely glows.
7. Same as step 7 above.
8. Press → • ← on the remote commander to put the system into normal mode.

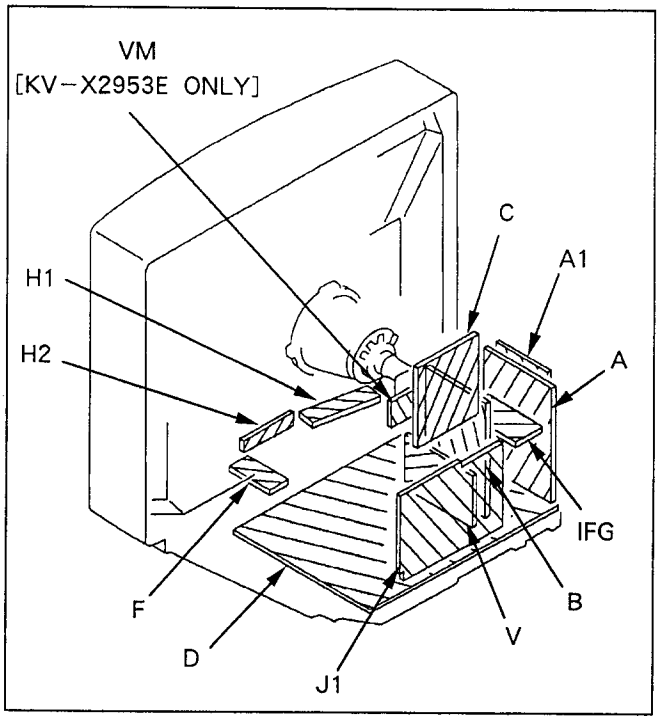
SUB COLOR ADJUSTMENT

1. Set the system to receive color bars.
2. Press → • ← on the remote commander to put the system into normal mode.
3. Cut off the power.
4. While depressing the adjustment buttons + and − simultaneusly, turn on the power. (SUB mode is obtained).
5. Adjust the color control so that the B out waveform (pin ⑤ of C board connector CNC72) is as shown in the figure below.
6. Depress the ◇ (store) button of the remote commander. (SUB mode is released)





5-2. CIRCUIT BOARDS LOCATION



Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: RW	NONFLAMMABLE WIREWOUND
	: ✱	ADJUSTMENT RESISTOR
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note :

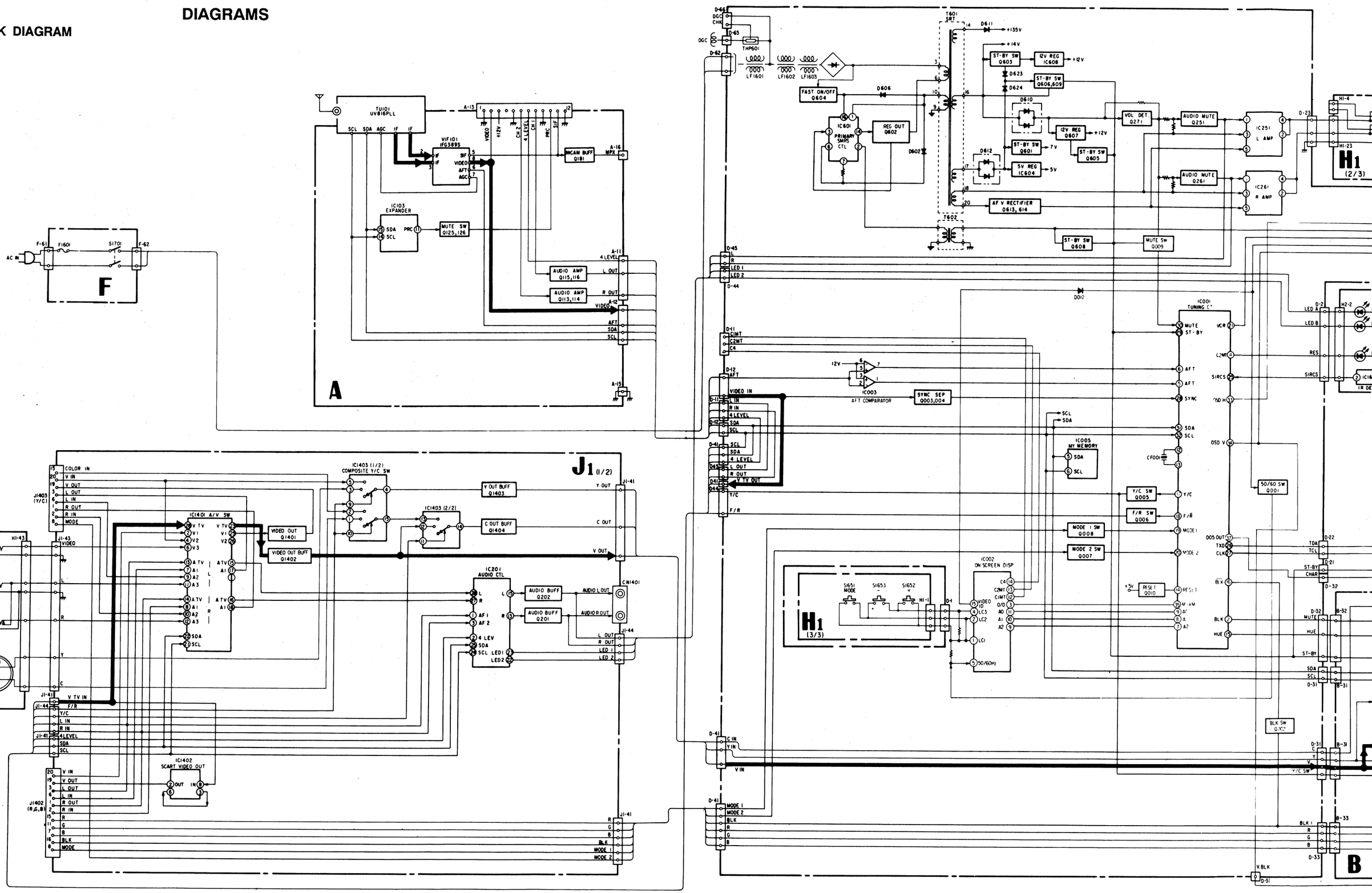
- All capacitors are in μF unless otherwise noted.
  pF : μμF 50WV or less are not indicated except for electrolytics.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

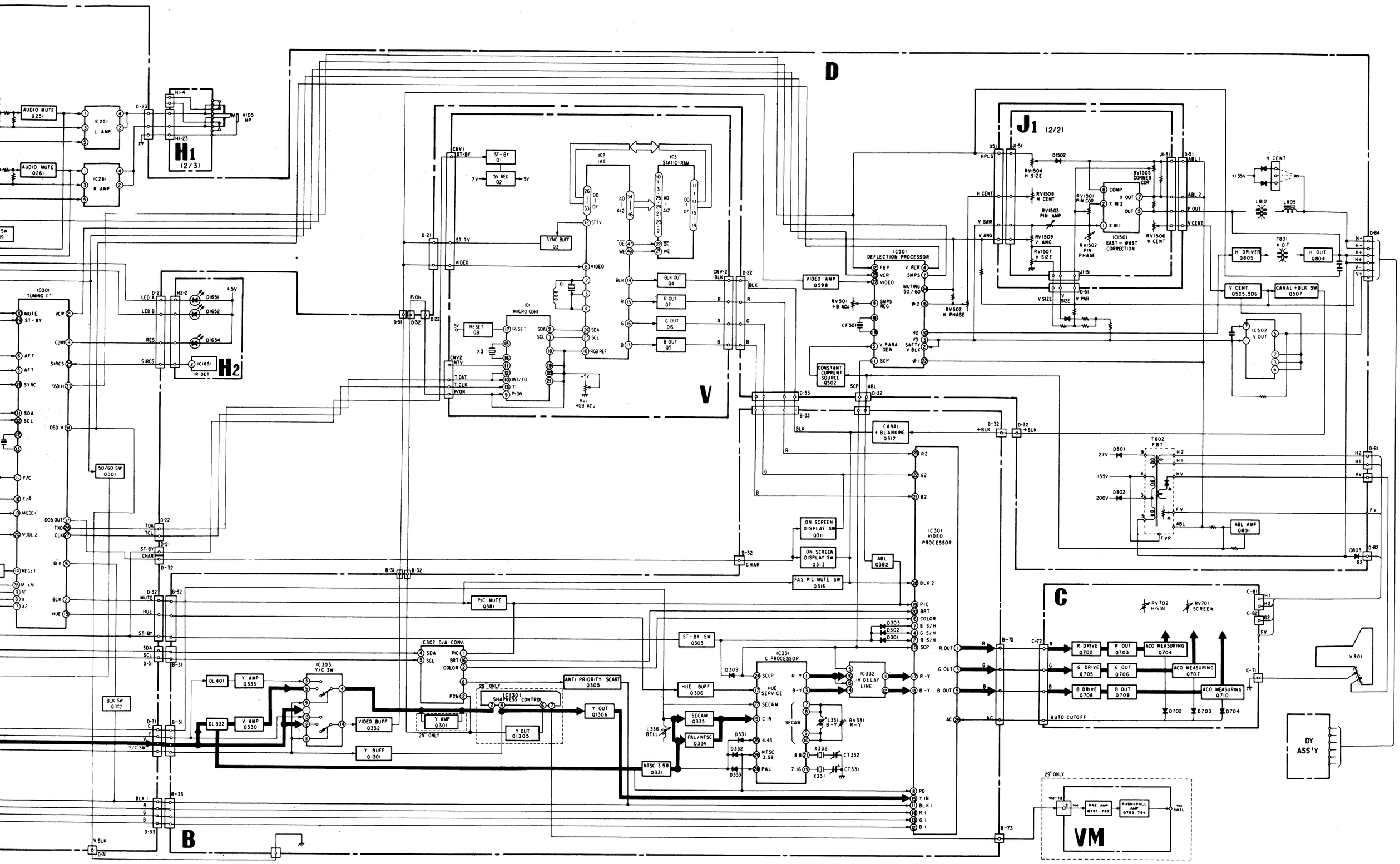
Pitch : 5mm Rating electrical power: 1/4W

- Chip resistor is in 1/10W.
- All resistors are in ohms. kΩ = 1000Ω, MΩ = 1000kΩ
- : nonflammable resistor.
- : fusible resistor.
- △ : internal component.
- : panel designation and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B.unless otherwise noted.
- All voltages are in V.
- Readings are taken with a 10MΩ digital multimeter.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerances.
- ——— : B + line.
- : signal path. (RF)

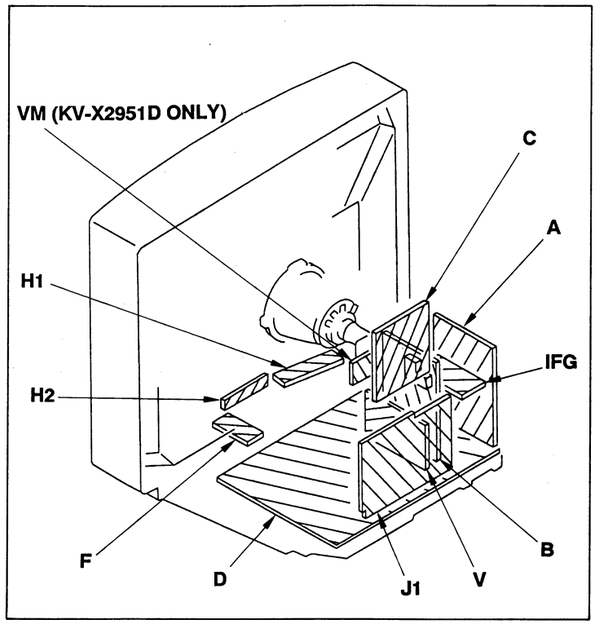
SECTION 5
DIAGRAMS

5-1. BLOCK DIAGRAM




D
J1 (2/2)
H1 (2/3)
H2
V
C
B
VM
AUDIO MUTE Q251
AUDIO MUTE Q261
IC251 L AMP
IC261 R AMP
HI-4
HI-23
HI05 HP
IC001 TUNING C°
MUTE
ST-BY
VCR
AFT
SIRCS
SYNC
OSD H
SDA
SCL
OSD V
Y/C
F/B
MODE 1
MODE 2
DOS OUT
TXD
CLK
RESET
BLK
HUE
50/60 SW Q001
LED A
LED B
RES
SIRCS
D1651
D1652
D1654
IC1651 IR DET
+5V
TDA
TCL
ST-BY
CHAR
MUTE
HUE
SDA
SCL
BLK SW Q303
DL 401
Y AMP Q333
DL 332
V AMP Q330
IC303 Y/C SW
VIDEO BUFF Q332
Y BUFF Q1301
Y/C SW
BLK 1
R
G
B
V.BLK
CNV1 ST-BY
ST-BY Q1
5V REG Q2
7V
5V
IC2 IVT
IC3 STATIC-RAM
ST TV
VIDEO
SYNC BUFF Q3
X1
X3
IC1 MICRO CONT
RESET Q8
T DAT
T CLK
P/ON
INT/TO TI
RGB REF
RV1 RGB ADJ
BLK OUT Q4
R OUT Q7
G OUT Q6
B OUT Q5
CNV2 INTV
CNV2 BLK
P/ON
D-21
D-22
D-31
D-32
IC302 D/A CONV.
PIC
BRT
COLOR
P2N
Y AMP Q301
25" ONLY
IC1301 SHARPNESS CONTROL
Y OUT Q1305
ANTI PRIORITY SCART Q305
PIC MUTE Q381
ST-BY SW Q303
HUE BUFF Q306
SECAM Q335
PAL/NTSC Q334
NTSC 3.58 Q331
L336 BELL
IC331 C PROCESSOR
SECCP
HUE SERVICE
SECAM
C IN
4.43
NTSC 3.58
PAL
D309
D331
D332
D333
X332
CT332
X331
CT331
8.8
7.16
IC332 1H DELAY LINE
R-Y
B-Y
L331 B-Y
RV331 R-Y
VIDEO AMP Q598
IC501 DEFLECTION PROCESSOR
FBP
VCR
VIDEO
SMPS REG
V PARA GEN
SCP
V ALR
SMPS
MUTING 50/60
HD
VD
SAFTY V BLK
RV501 +B ADJ
CF501
RV502 H PHASE
CONSTANT CURRENT SOURCE Q502
CANAL + BLANKING Q312
ON SCREEN DISPLAY SW Q311
ON SCREEN DISPLAY SW Q313
FAS PIC MUTE SW Q316
ABL Q382
IC301 VIDEO PROCESSOR
R2
G2
B2
BLK 2
PIC
BRT
COLOR
B S/H
G S/H
R S/H
SCP
PD
Y IN
BLK I
R I
G I
B I
D303
D302
D301
R OUT
G OUT
B OUT
AC
AUTO CUTOFF
R DRIVE Q702
G DRIVE Q705
B DRIVE Q708
R OUT Q703
G OUT Q706
B OUT Q709
ACO MEASURING Q704
ACO MEASURING Q707
ACO MEASURING Q710
D702
D703
D704
RV702 H-STAT
RV701 SCREEN
V 901
DY ASS'Y
VM-73
PRE AMP Q781, 782
PUSH-PULL AMP Q783, 784
VM COIL
H CENT
V SAW
V ANG
V SIZE
V PAR
RV1504 H SIZE
RV1508 H CENT
RV1503 PIN AMP
RV1509 V ANG
RV1507 V SIZE
RV1501 PIN COR
RV1502 PIN PHASE
IC1501 EAST-WAST CORRECTION
RV1505 CORNER COR
RV1506 V CENT
D1502
D51
JI-51
D-51
ABL 1
ABL 2
P OUT
V CENT
+135V
L810
L805
H DRIVER Q805
T801 H.D.T
H OUT Q804
V CENT Q505,506
CANAL + BLK SW Q507
IC502 V OUT
T802 FBT
D801
D802
27V
135V
200V
H2
H1
HV
FV
ABL
FVR
ABL AMP Q801
D803
G2
D-84
D-81
D-82
C-81
C-82
C-71
C-72
B-72
B-73
B-32
B-33
+BLK
29" ONLY

5-2. CIRCUIT BOARDS LOCATION



5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS – Conductor Side –

Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytic and tantalums.
- All resistors are in ohms.
  kΩ =1000Ω , MΩ =1000KΩ
- Indication of resistance, which does not have one for rating electrical power, is as follows.

  Pitch: 5 mm
  Rating electrical power ¼ W

- : nonflammable resistor.
- △ : internal component.
- ▭ : panel designation, or adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- ⊥ : earth-ground.
- ⏚ : earth-chassis.
- # : no mounted.

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

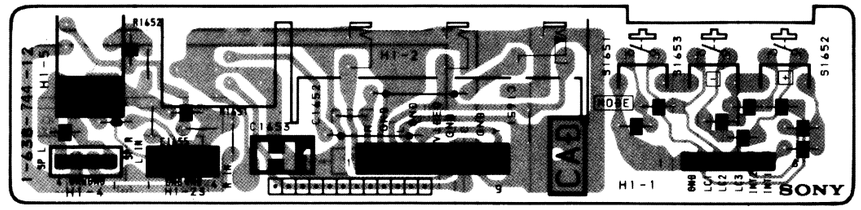
Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: RW	NONFLAMMABLE WIREWOUND
	: ※	ADJUSTMENT RESISTOR
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

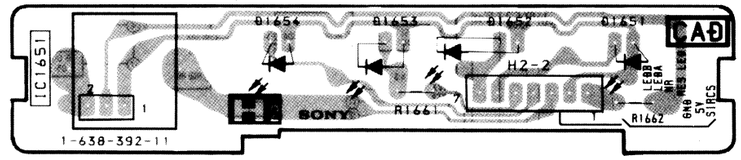
- Readings are taken with a color-bar signal input.
- Readings are taken with a 10MΩ digital multimeter.
- Voltage are dc with respect to ground unless otherwise noted.
- Voltage varietions may be noted due to normal production tolerances.
- All voltages are in V.
- Circuled numbers are waveform references.
- ▬▬ : B+ bus.
- ▒▒▒ : signal path. (RF)

H1 [CONTROL SW, AV INPUT, HEADPHONE] **H2** [SIRCS RECEIVER, INDICATOR] **F** [AC IN POWER SW]

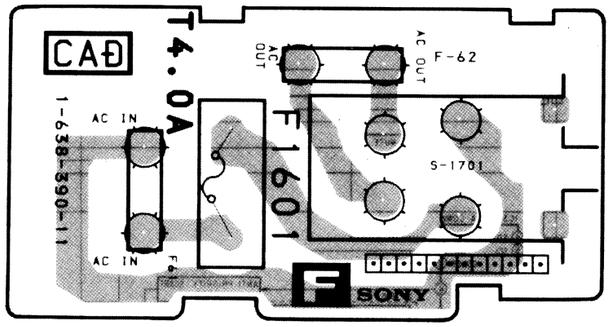
– H1 Board –



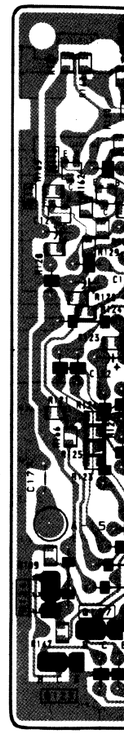
– H2 Board –



– F Board –



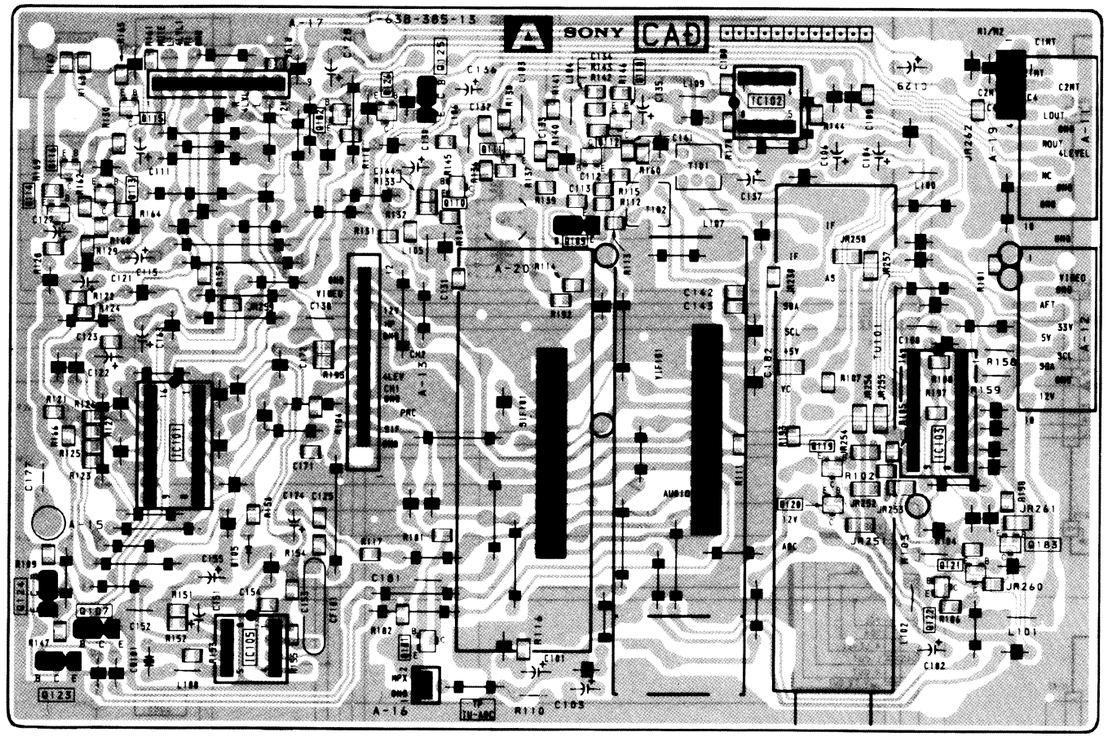
– A Board –



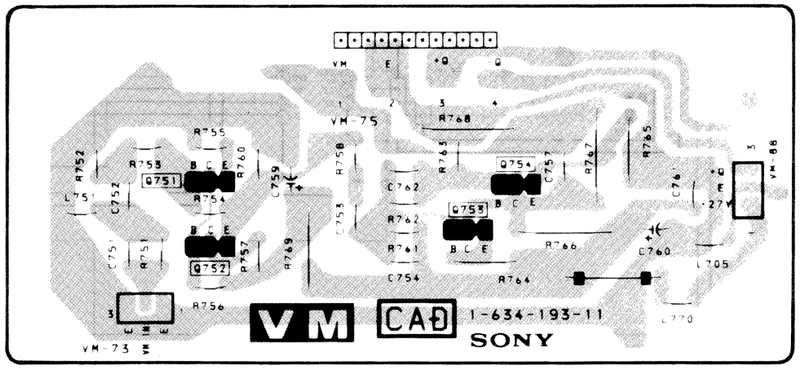
A [TUNER, SIF,VIF] **VM** [VM AMP]

J1 [AUDIO CONTROL, AV INPUT Y/C INPUT, SCAR VIDEO OUT, EAST-WEST CORRECTION]

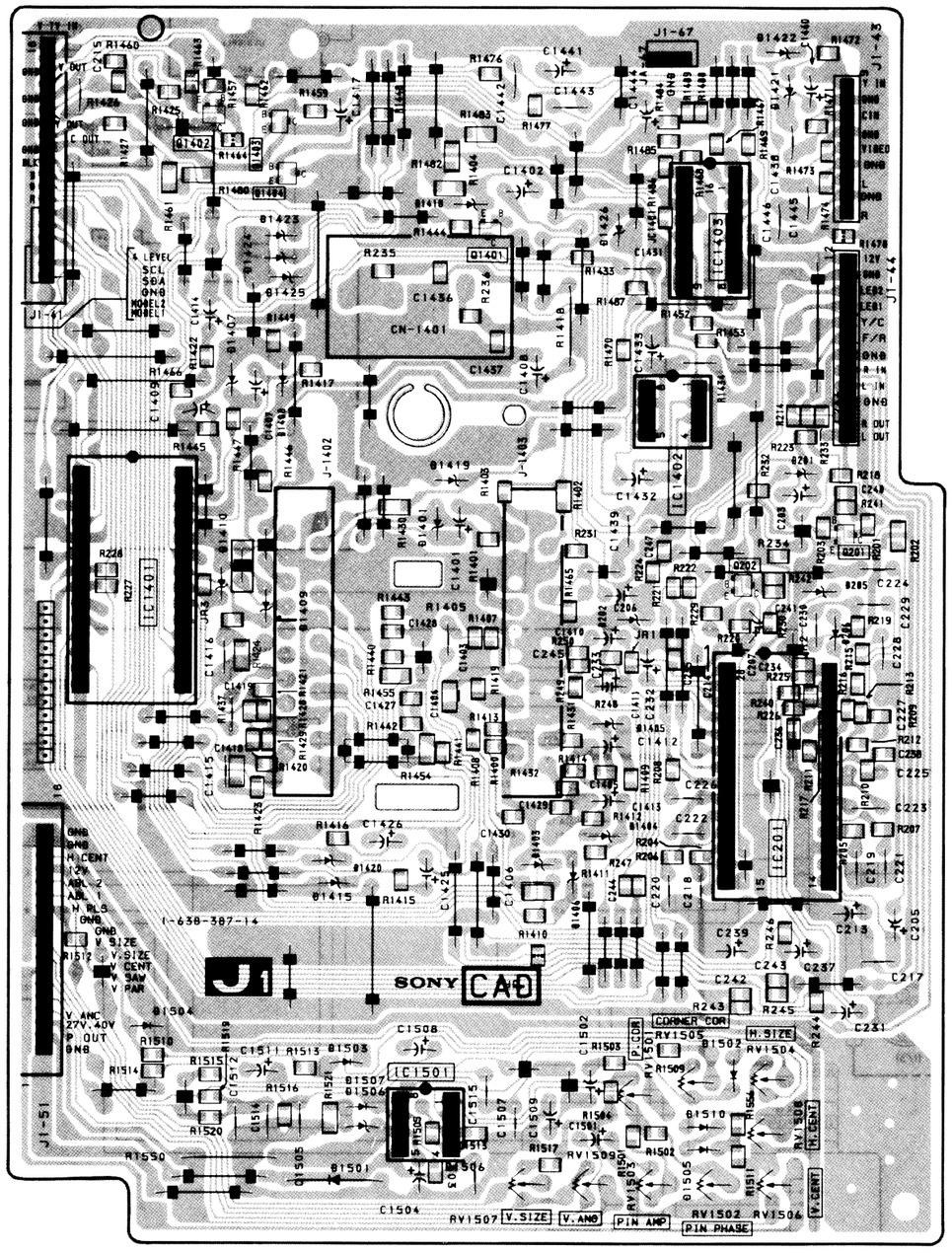
– A Board –

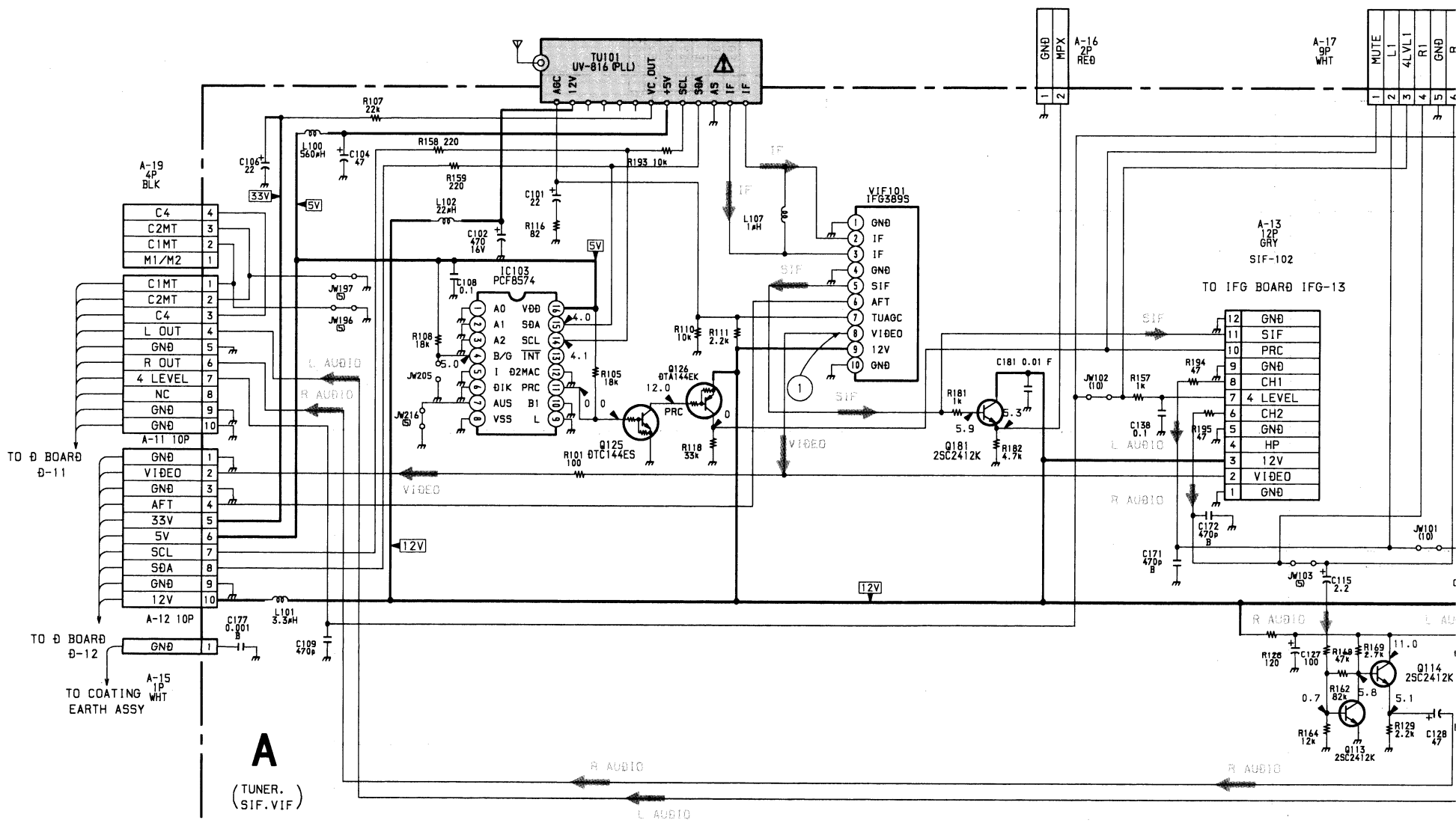


– VM Board – (29 inch only)

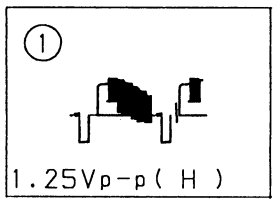


– J1 Board –





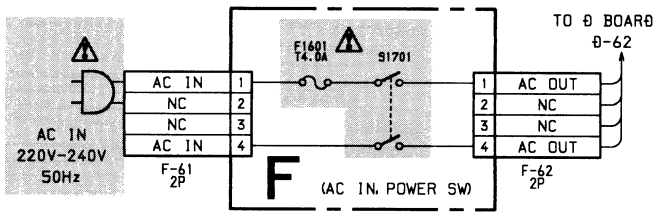
A BOARD WAVEFORM



B-SS4065<AEP>-A<WAVELIST>

A Board

IC103	PCF8574	EXPANDER
Q113	2SC2412K	AUDIO AMP
Q114	2SC2412K	AUDIO AMP
Q115	2SC2412K	AUDIO AMP
Q116	2SC2412K	AUDIO AMP
Q125	DTC144ES	MUTE SW
Q126	DTA144EK	MUTE SW
Q181	2SC2412K	NICAM BUFFER



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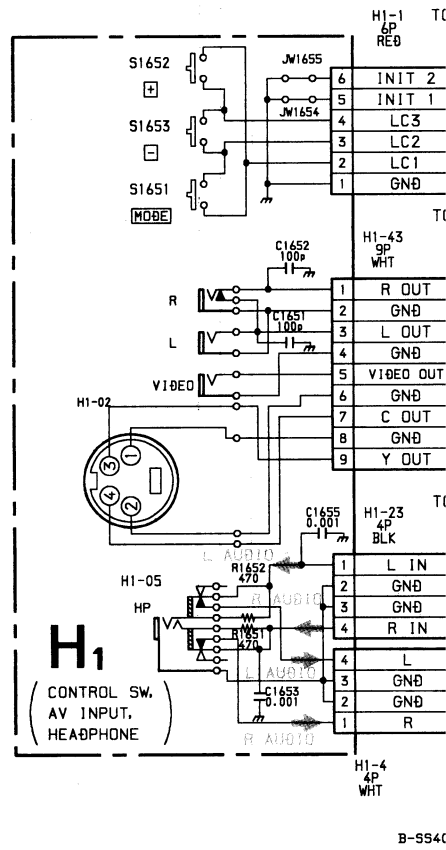
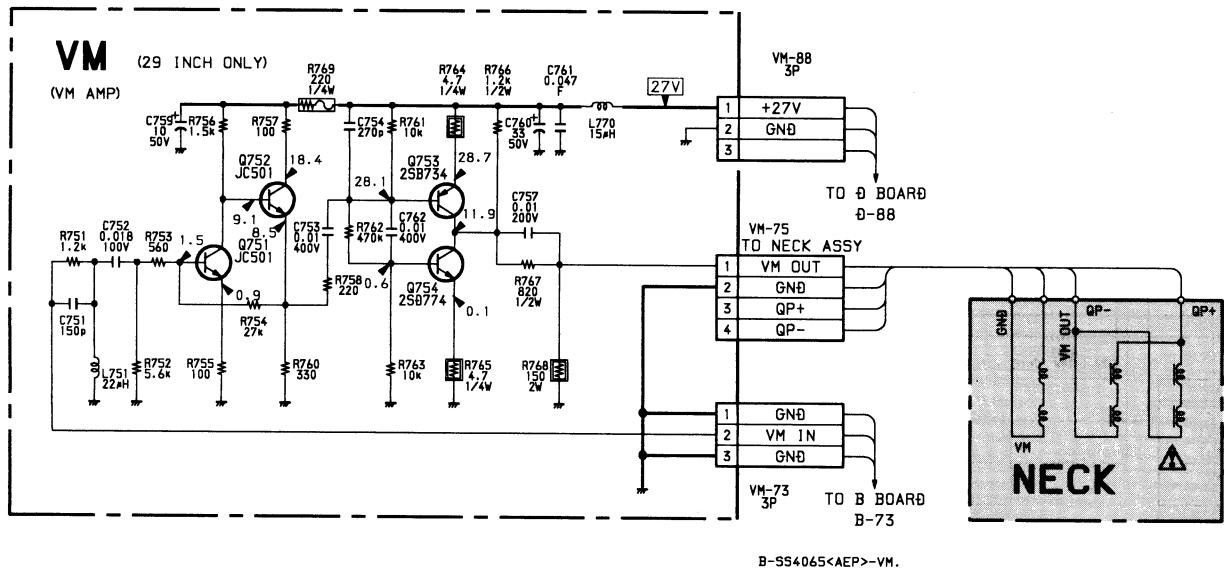


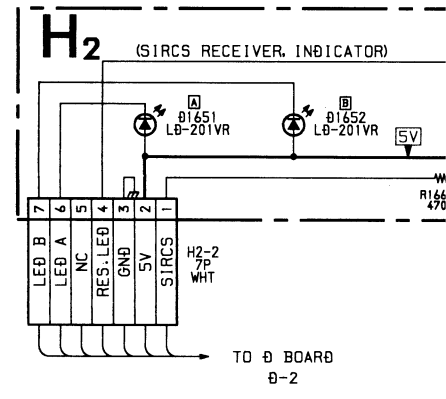
B-SS40



B-SS4065<AEP>-VM.

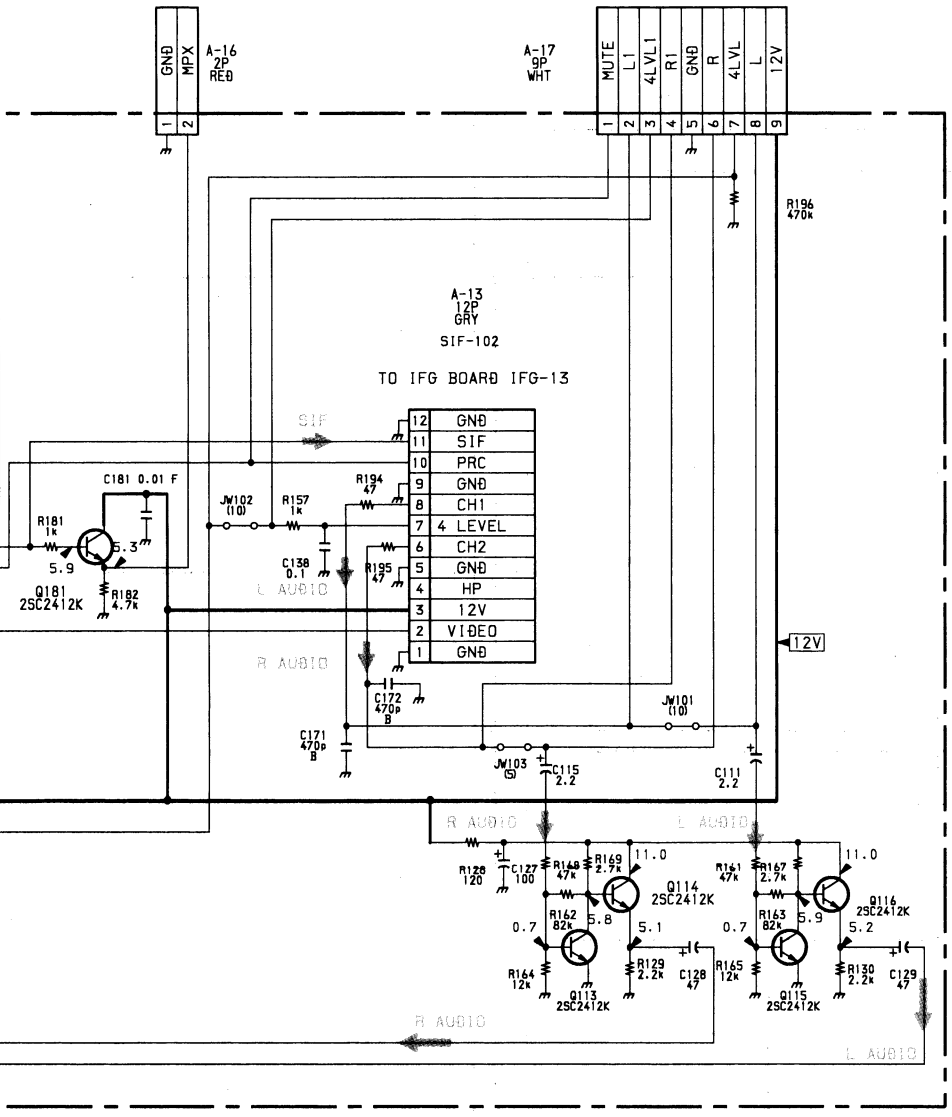
VM Board

Q751	JC501	REF-AMP
Q752	JC501	REF-AMP
Q753	2SB734	PUSH-PULL OUT
Q754	2SB774	PUSH-PULL OUT

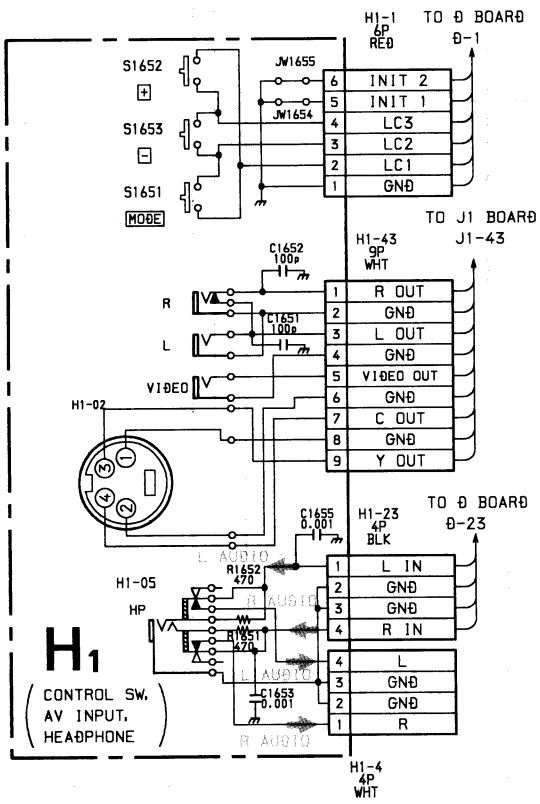


H2 Board

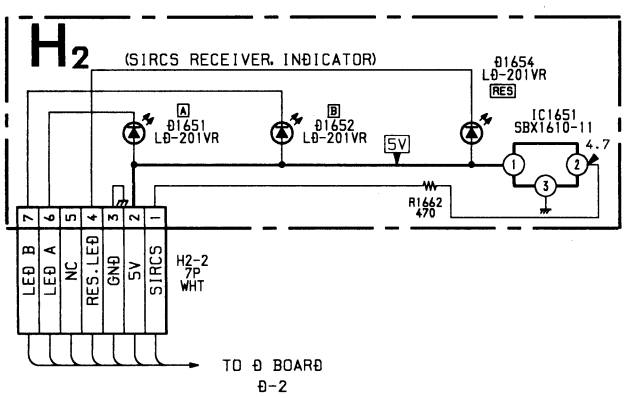
IC1651	SBX1610-11	INFRA
D1651	LD-201VR	AUDIO
D1652	LD-201VR	AUDIO
D1654	LD-201VR	RESET



B-SS4065<AEP>-A..



B-SS4065<AEP>-H1.



B-SS4065<AEP>-H2.

H2 Board

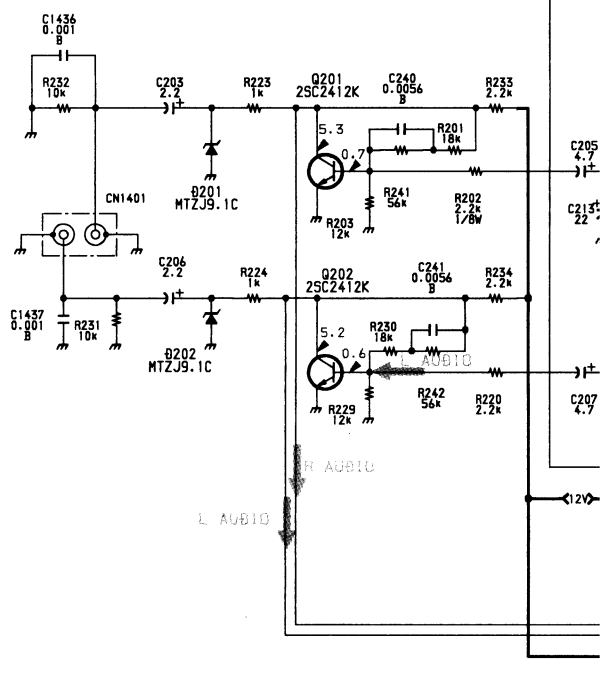
IC1651	SBX1610-11	INFRARED RECIEVER
D1651	LD-201VR	AUDIO CHANNEL A INDICATOR
D1652	LD-201VR	AUDIO CHANNEL B INDICATOR
D1654	LD-201VR	RESET

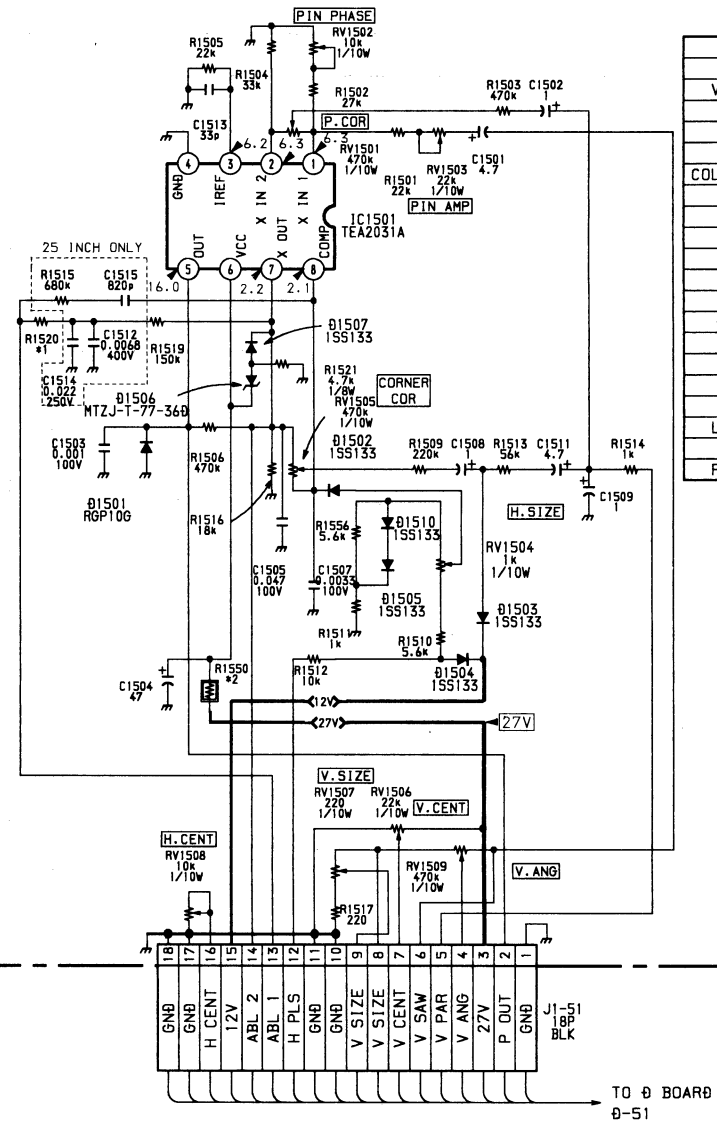
J1

(AUDIO CONTROL,
AV INPUT, Y/C INPUT,
SCART VIDEO OUT,
EAST-WEST CORRECTION)

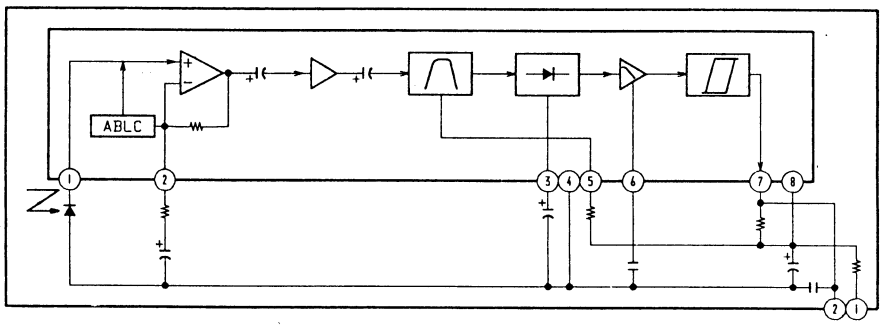
J1 BOARD
* MARK

	25 INCH	29 INCH
*1 R1520	470K	390K
*2 R1550	JW (15)	1 1W





H2 Board IC1651 SBX1610-11

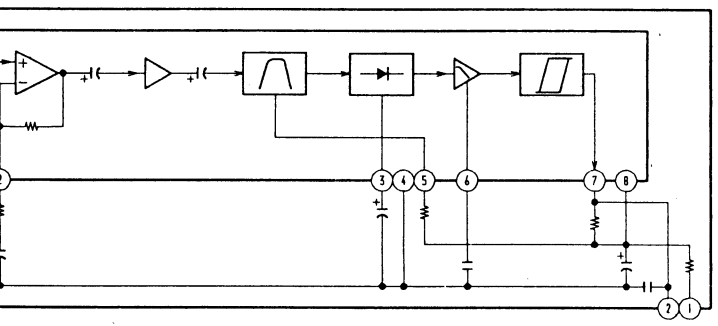


INCH
390K
1 1W

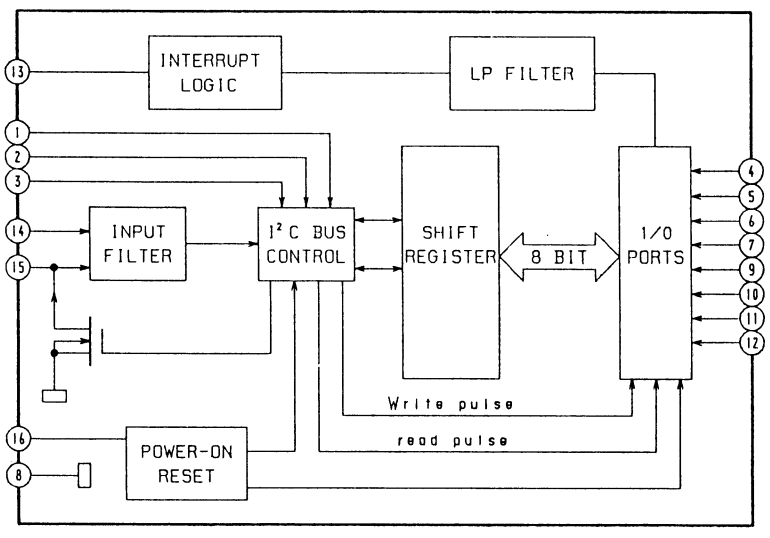
TO Đ BOARĐ Đ-51

TO Đ BOARĐ Đ-41

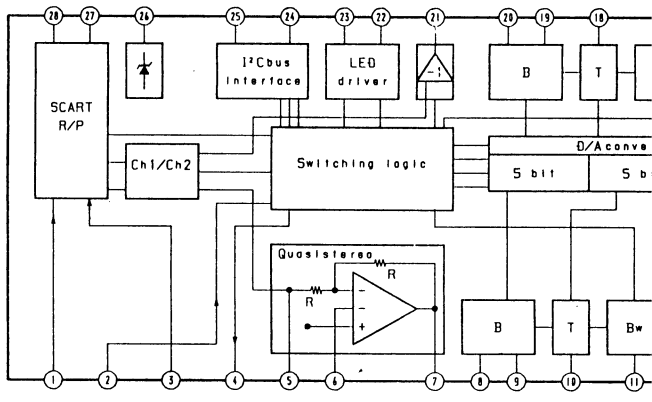
1651 SBX1610-11

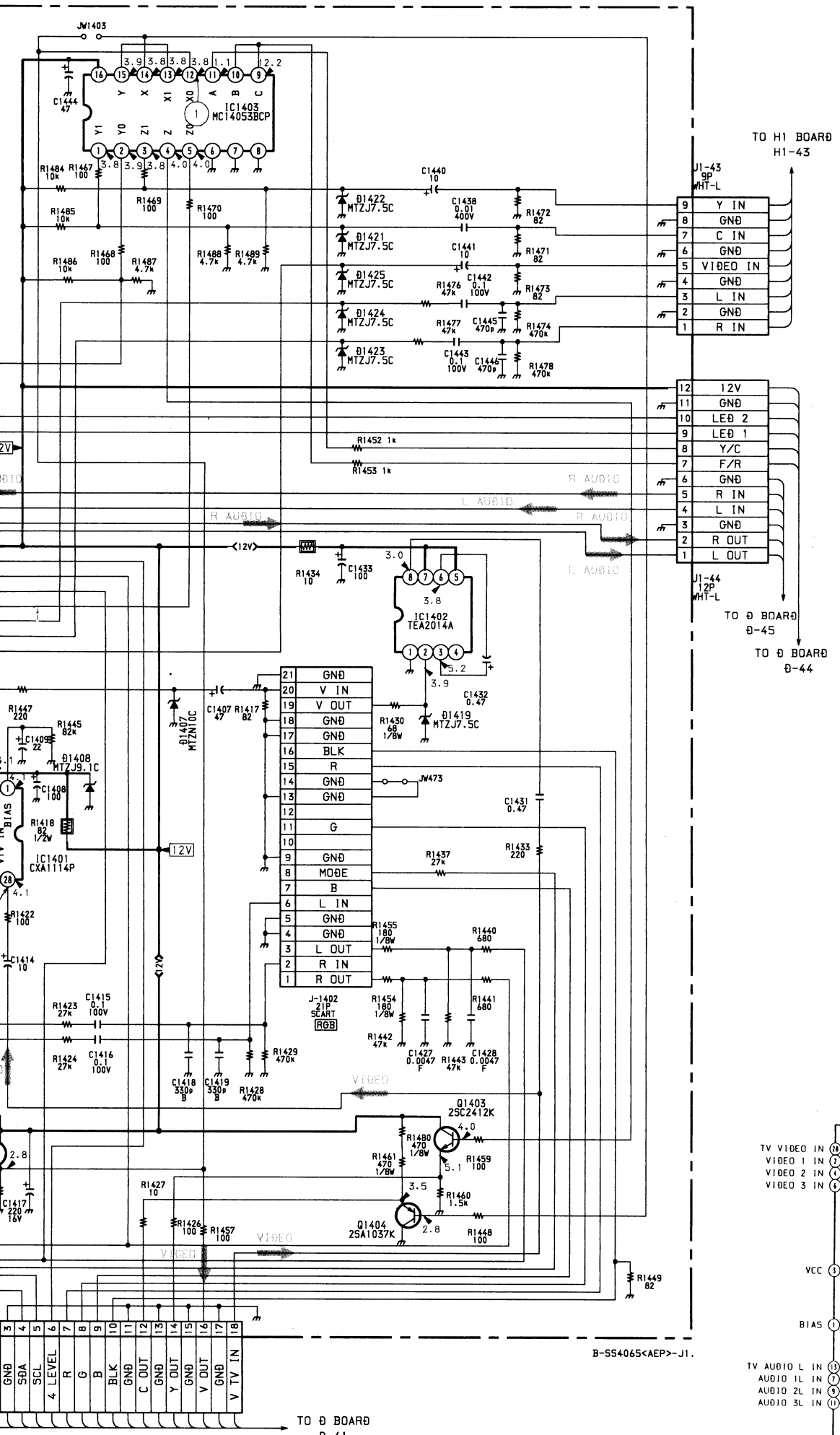


A Board IC103 PCF8574



J1 Board IC201 TDA6200

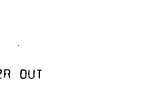




J1 Board

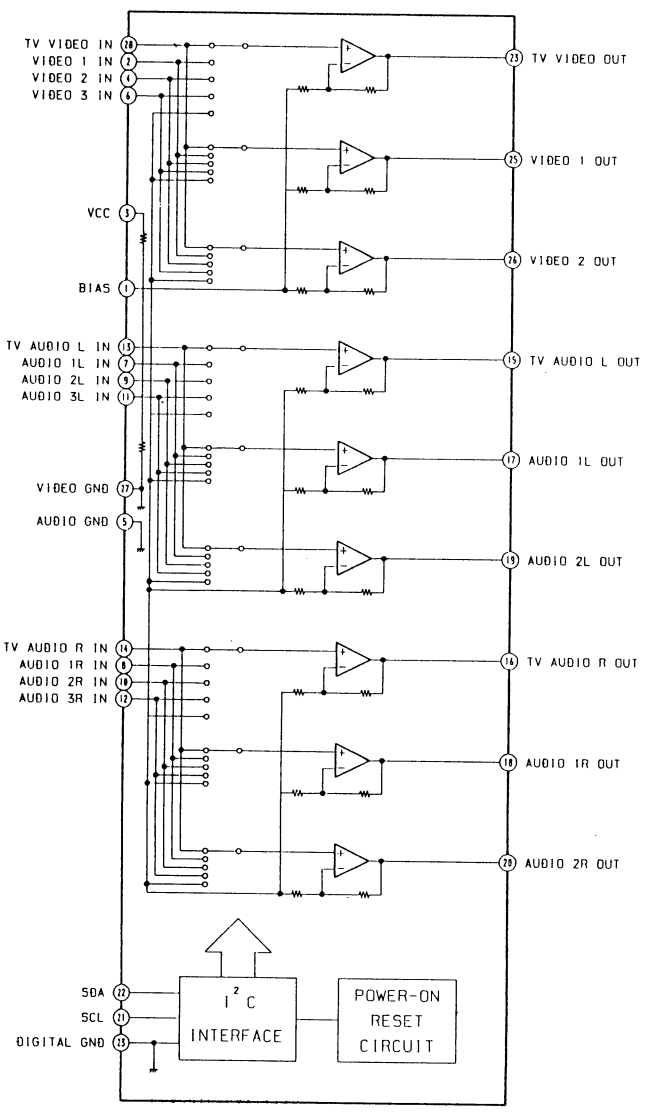
IC201	TDA6200	AUDIO CONTROL
IC1401	CXA1114P	AV SW
IC1402	TEA2014A	SCART VIDEO OUT
IC1403	MC14053BCP	COMPOSITE Y/C SW
IC1501	TEA2031A	EAST-WEST CORRECTION
Q201	2SC2412K	AUDIO R BUFF
Q202	2SC2412K	AUDIO L BUFF
Q1401	2SA1037K	VIDEO OUT
Q1402	2SC2412K	VIDEO OUT BUFF
Q1403	2SC2412K	Y OUT BUFF
Q1404	2SA1037K	C OUT BUFF
D201	MTZJ9.1C	PROTECT
D202	MTZJ9.1C	PROTECT
D205	MTZJ7.5C	PROTECT
D206	MTZJ7.5C	PROTECT
D1401	MTZJ7.5C	PROTECT
D1403	MTZJ7.5C	PROTECT
D1404	MTZJ7.5C	PROTECT
D1405	MTZJ7.5C	PROTECT
D1406	MTZJ7.5C	PROTECT
D1407	MTZJ10C	PROTECT
D1408	MTZJ9.1C	REG
D1409	MTZJ9.1C	PROTECT
D1410	MTZJ9.1C	PROTECT
D1415	MTZJ7.5C	PROTECT
D1418	MTZJ7.5C	PROTECT
D1419	MTZJ7.5C	PROTECT
D1420	MTZJ7.5C	PROTECT
D1421	MTZJ7.5C	PROTECT
D1422	MTZJ7.5C	PROTECT
D1423	MTZJ7.5C	PROTECT
D1424	MTZJ7.5C	PROTECT
D1425	MTZJ7.5C	PROTECT
D1426	MTZJ7.5C	PROTECT
D1501	RGP10G	PROTECT
D1502	1SS133	DE COUPLING H SIZE
D1503	1SS133	CLIPPING V PARABORA
D1504	1SS133	CLIPPING H PULSE
D1505	1SS133	REG
D1506	MTZJ36D	PROTECT
D1507	1SS133	PROTECT
D1510	1SS133	REG

J1 BOARD WAVEFORMS

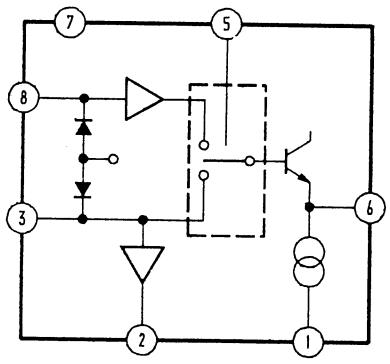
①	②	③
		
1.25Vp-p(H)	1.25Vp-p (H)	2.0Vp-p (H)

B-SS4065<AEP>-J1<WAVELIST>

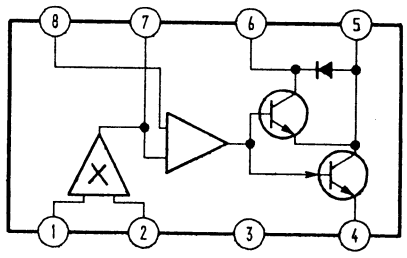
J1 Board IC1401 CXA1114P



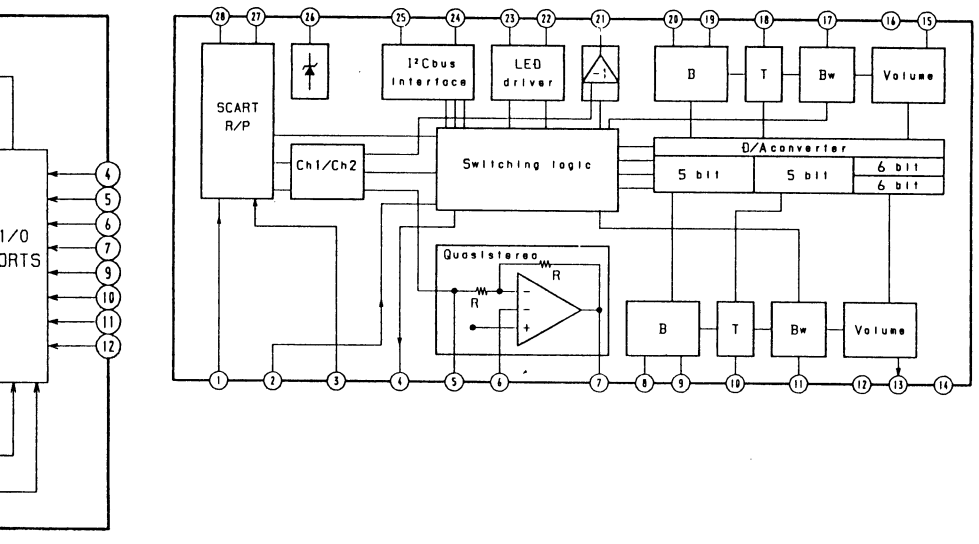
J1 Board IC1402 TEA2014A



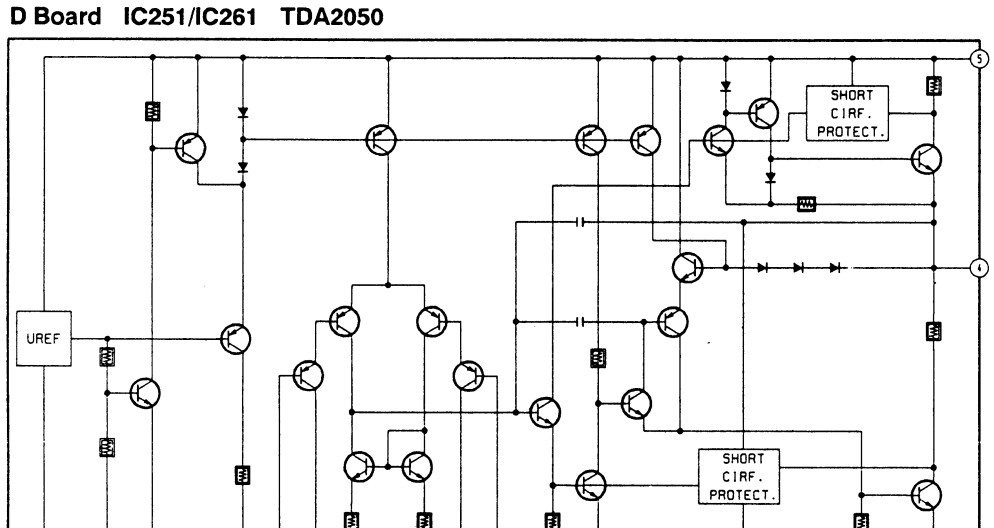
J1 Board IC1501 TEA2031A



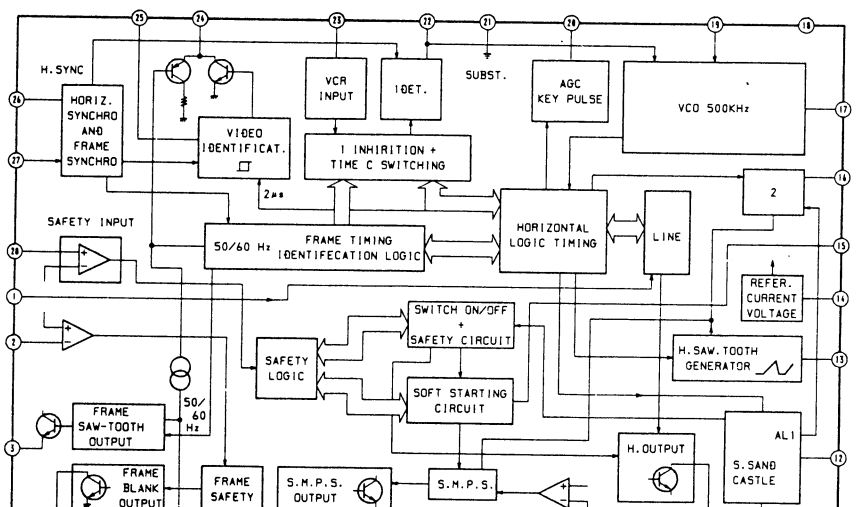
J1 Board IC201 TDA6200



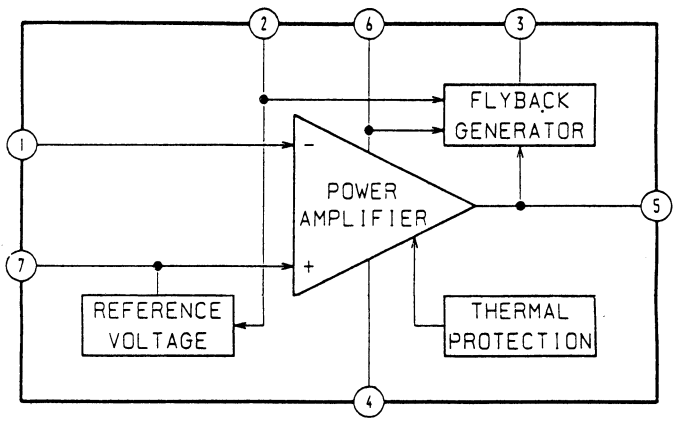
D Board IC251/IC261 TDA2050



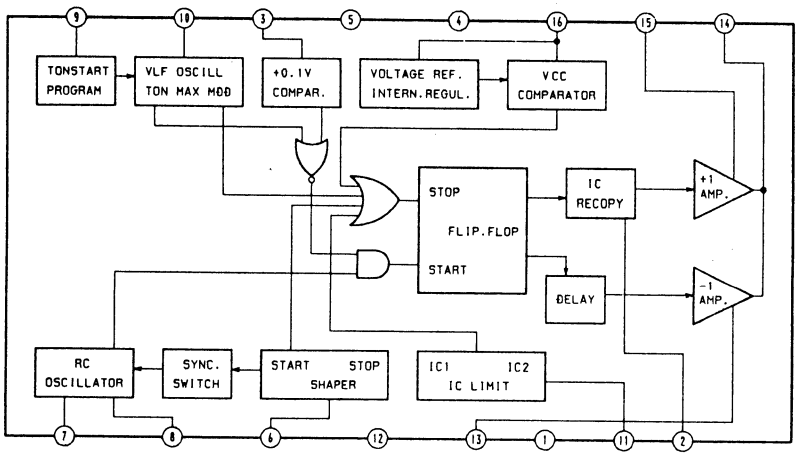
D Board IC501 TEA2028B



D Board IC502 TDA8170



D Board IC601 TEA2260



D BOARD WAVEFORMS

① 1.0 Vp-p(H)	② 2.5 Vp-p(V)	③ 4.8 Vp-p(V)
④ 3.0 Vp-p(V)	⑤ 4.5 Vp-p(H)	⑥ 9.0 Vp-p(H)
⑦ 12.0Vp-p(H)	⑧ 3.4 Vp-p(H)	⑨ 0.1 Vp-p(503KHz)
⑩ 1.1 Vp-p(H)	⑪ 0.7Vp-p(V)	⑫ 3.0 Vp-p(V)
⑬ 29.0Vp-p(V)	⑭ 28.0Vp-p(V)	⑮ 3.4 Vp-p(H)
⑯ 230 Vp-p(H)	⑰ 16.0Vp-p(H)	⑱ 900 Vp-p(H)

B-SS4065<AEP>-0<WAVELIST>-1

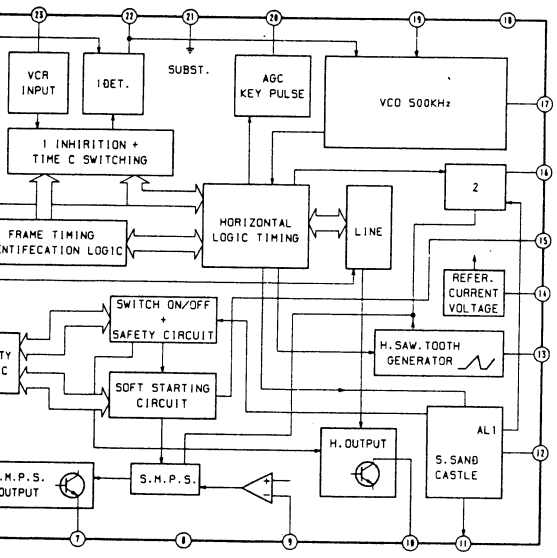
⑲ 260Vp-p (H)	⑳ 8.0Vp-p (V)	㉑ 48.0Vp-p (V)
㉒ 1.4Vp-p (H)	㉓ 4.0 Vp-p(12MHz)	

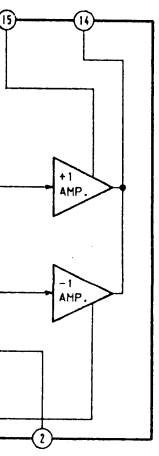
B-SS4065<AEP>-0<WAVELIST>-2

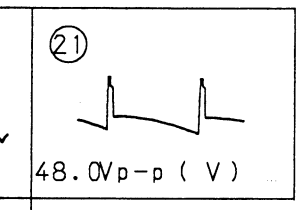
D Board

IC001	SDA20560-A012	TUNING CTL
IC002	MC14051BCP	ON SCREEN DIS
IC003	BA4558	AFT COMPARATO
IC005	SDA2546	MY MEMORY
IC251	TDA2050	AUDIO OUT(L)
IC261	TDA2050	AUDIO OUT(R)
IC501	TEA2028B	DEFLECTION PR
IC502	TDA8170	V OUT
IC601	TEA2260	PRIMARY SMRS
IC604	TEA7605	+5V REG
IC608	MC7812CT	+12V REG
Q001	DTC144EK	50/60Hz SW
Q002	DTC144EK	BLK SW
Q003	2SA1037-K	SYNC SEPARATO
Q004	2SA1037-K	SYNC SEPARATO
Q005	DTC144EK	Y/C SW
Q006	DTC144EK	FRONT/REAR SW
Q007	2SC2412-K	MODE 2 SWITCH
Q008	2SC2412-K	MODE 1 SWITCH
Q009	2SC2412-K	MUTE SW
Q010	2SC2412-K	RESET
Q251	2SC2412-K	AUDIO MUTE
Q261	2SC2412-K	AUDIO MUTE
Q271	2SC2412-K	VOLTAGE DETEC
Q502	2SA1037-K	CONSTANT CURR
Q505	2SD774-4	V CENT
Q506	2SB734-3	V CENT
Q507	2SA1037-K	CANAL +BLK
Q598	2SA1037-K	VIDEO AMP
Q601	2SD1357T114EF	STBY SW
Q602	2SD1548	REG OUT
Q603	2SB1357T114EF	STBY SW
Q604	2SA1037-K	FAST ON/OFF
Q605	2SC2412-K	STBY SW
Q606	2SC2412-K	STBY SW
Q607	2SD2096	+12V REG
Q608	2SC2412K	STBY SW
Q609	2SD789-3	STBY SW
Q801	2SC2412-K	ABL AMP
Q804	2SD1941-06	H OUT
Q805	2SC2688-L	H DRIVER
D001	MTZJ6.8C	
D002	MTZJ6.8C	
D003	1SS133	HUE CTL
D005	MTZJ5.6B	PROT
D006	MTZJ33A	VC VOLTAGE RE
D007	MTZJ3.9B	PLOT RESET
D009	MTZJ5.6B	CLIPPING SYNC
D010	MTZJ6.2B	PROT
D011	MTZJ6.2B	PROT
D012	1SS133	PROT
D013	MTZJ6.8C	PROT
D271	MTZJ13B	VOLTAGE DETEC
D272	1SS133	DECOUPLING MU
D501	1SS133	START
D504	GP08D	V PULSE OUT
D508	1SS133	CANAL +BLK LE
D509	1SS133	V LIN
D511	GP08D	PROT
D512	GP08D	PROT
D513	MTZJ4.7B	PROT
D514	1SS133	PROT
D515	1SS133	PROT
D601	D4SB60L-F	AC RECT
D602	RGP10G	REF RECT
D603	GP08D	SMPS DRIVE 1
D604	GP08D	SMPS DRIVE 2
D605	GP08D	SMPS DRIVE 3
D606	RGP10G	+12V RECT
D607	RGP10G	REF RECT
D608	ERC25-06S	PLUSE CLIPPER
D609	MTZJ33A	FAST ON/OFF
D610	CTU-12S	+14V RECT
D611	ERD29-08J	+135V RECT
D612	CTU-12S	+7V RECT
D613	RGP15J	AF V RECT-1
D614	RGP15J	AF V RECT-2
D616	MTZJ6.2B	+12V REG
D617	1SS133	PROT
D618	MTZJ5.6B	+12V REF
D619	MTZJ33A	FAST ON/OFF-2
D620	DA204K	+12V REF
D621	MTZJ33A	FAST ON/OFF-3
D622	1SS133	PROT
D623	1SS133	DECOUPLING ST
D624	1SS133	DECOUPLING DT
D630	MTZJ15A	+12V RECT
D801	RGP10G	+27V RECT
D802	RGP10G	+200V RECT
D803	RGP02-17	G2 RECT
D804	GP08D	H CENTER-1
D805	GP08D	H CENTER-2
D806	ERC06-15S	H DAMPER-1
D807	ERC06-15S	H DAMPER-2
D808	ERD29-08J	PIN DAMPER

28B

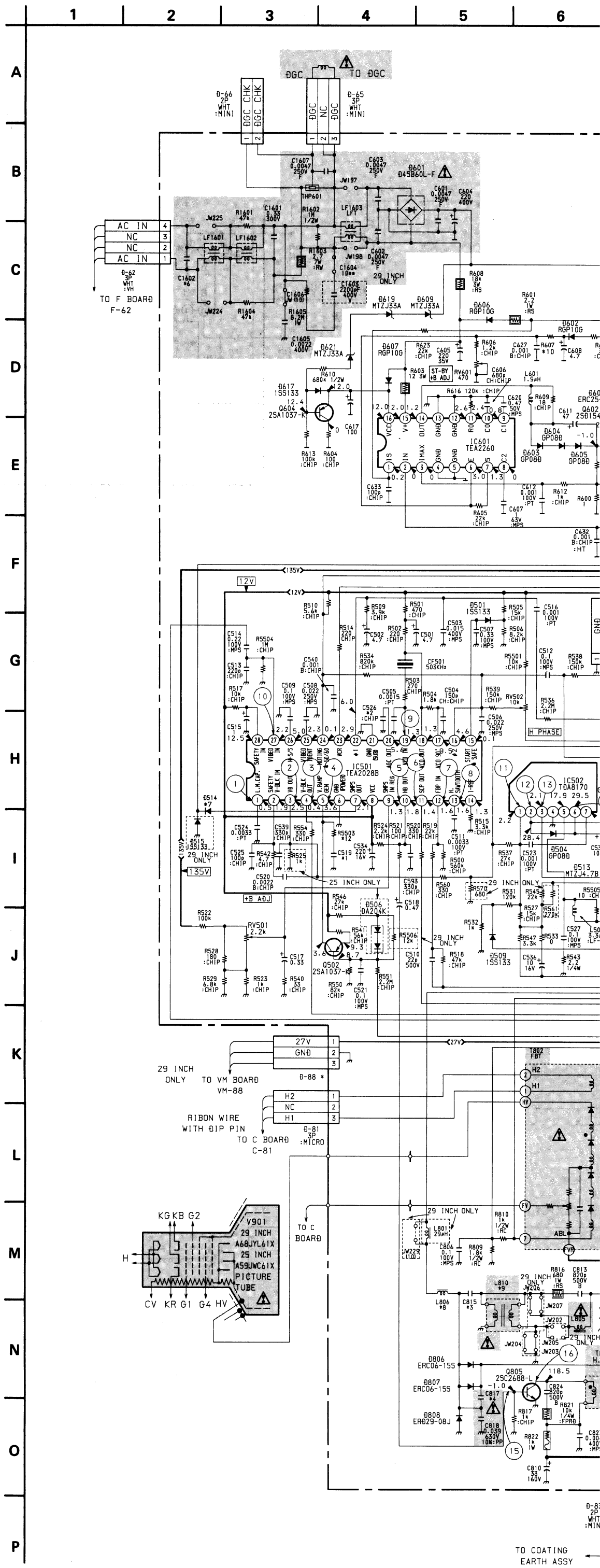




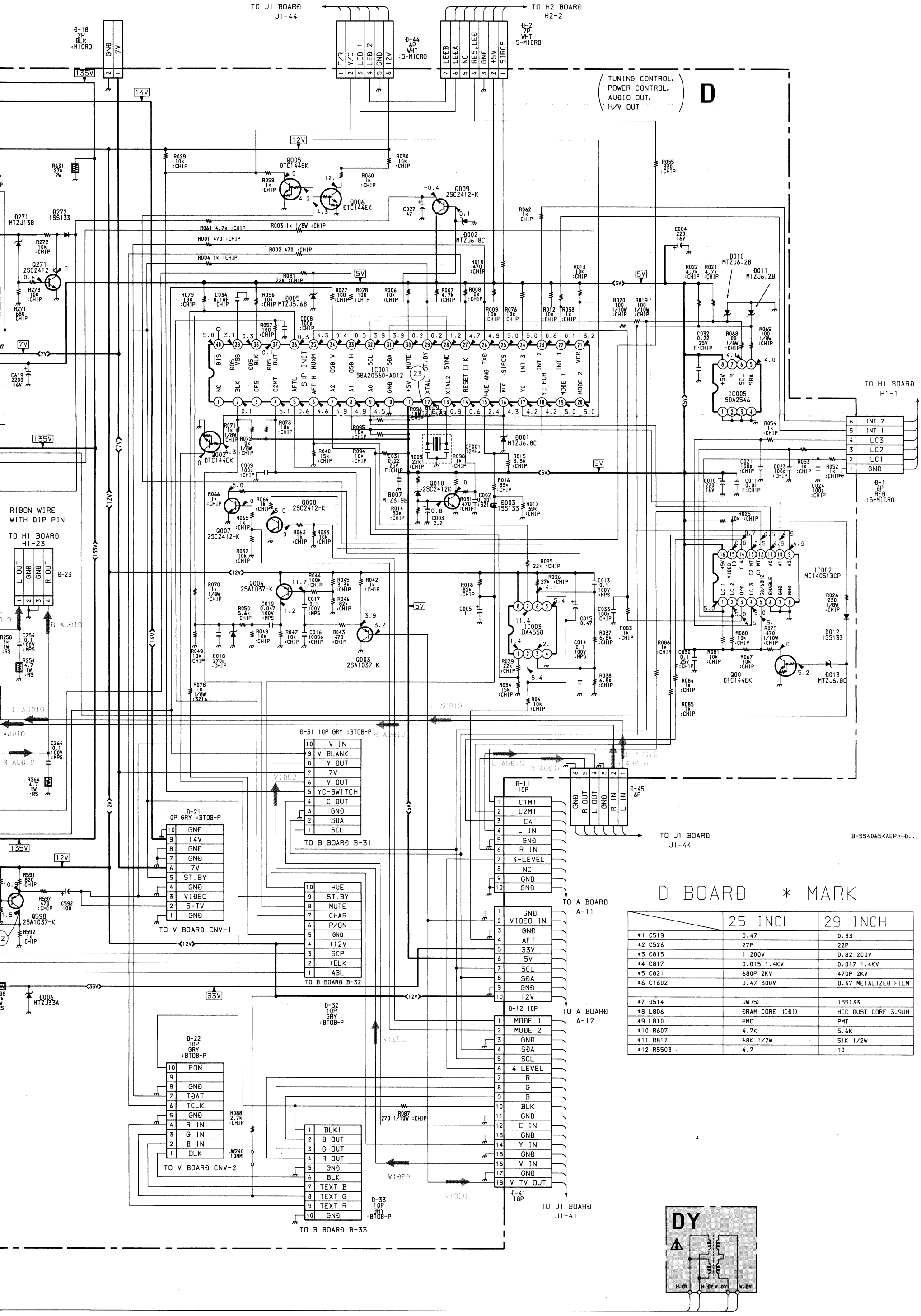


D Board

IC001	SDA20560-A012	TUNING CTL
IC002	MC14051BCP	ON SCREEN DISPLAY
IC003	BA4558	AFT COMPARATOR
IC005	SDA2546	MY MEMORY
IC251	TDA2050	AUDIO OUT(L)
IC261	TDA2050	AUDIO OUT(R)
IC501	TEA2028B	DEFLECTION PROCESSOR
IC502	TDA8170	V OUT
IC601	TEA2260	PRIMARY SMRS CTL
IC604	TEA7605	+5V REG
IC608	MC7812CT	+12V REG
Q001	DTC144EK	50/60Hz SW
Q002	DTC144EK	BLK SW
Q003	2SA1037-K	SYNC SEPARATOR
Q004	2SA1037-K	SYNC SEPARATOR
Q005	DTC144EK	Y/C SW
Q006	DTC144EK	FRONT/REAR SW
Q007	2SC2412-K	MODE 2 SWITCH
Q008	2SC2412-K	MODE 1 SWITCH
Q009	2SC2412-K	MUTE SW
Q010	2SC2412-K	RESET
Q251	2SC2412-K	AUDIO MUTE
Q261	2SC2412-K	AUDIO MUTE
Q271	2SC2412-K	VOLTAGE DETECT
Q502	2SA1037-K	CONSTANT CURRENT SOURCE
Q505	2SD774-4	V CENT
Q506	2SB734-3	V CENT
Q507	2SA1037-K	CANAL +BLK
Q598	2SA1037-K	VIDEO AMP
Q601	2SD1357T114EF	STBY SW
Q602	2SD1548	REG OUT
Q603	2SB1357T114EF	STBY SW
Q604	2SA1037-K	FAST ON/OFF
Q605	2SC2412-K	STBY SW
Q606	2SC2412-K	STBY SW
Q607	2SD2096	+12V REG
Q608	2SC2412K	STBY SW
Q609	2SD789-3	STBY SW
Q801	2SC2412-K	ABL AMP
Q804	2SD1941-06	H OUT
Q805	2SC2688-L	H DRIVER
D001	MTZJ6.8C	
D002	MTZJ6.8C	
D003	1SS133	HUE CTL
D005	MTZJ5.6B	PROT
D006	MTZJ33A	VC VOLTAGE REGULATION
D007	MTZJ3.9B	PLOT RESET
D009	MTZJ5.6B	CLIPPING SYNC LEVEL
D010	MTZJ6.2B	PROT
D011	MTZJ6.2B	PROT
D012	1SS133	PROT
D013	MTZJ6.8C	PROT
D271	MTZJ13B	VOLTAGE DETECT
D272	1SS133	DECOUPLING MUTE AUDIO
D501	1SS133	START
D504	GP08D	V PULSE OUT
D508	1SS133	CANAL +BLK LEVEL
D509	1SS133	V LIN
D511	GP08D	PROT
D512	GP08D	PROT
D513	MTZJ4.7B	PROT
D514	1SS133	PROT
D515	1SS133	PROT
D601	D4SB60L-F	AC RECT
D602	RGP10G	REF RECT
D603	GP08D	SMPS DRIVE 1
D604	GP08D	SMPS DRIVE 2
D605	GP08D	SMPS DRIVE 3
D606	RGP10G	+12V RECT
D607	RGP10G	REF RECT
D608	ERC25-06S	PLUSE CLIPPER
D609	MTZJ33A	FAST ON/OFF
D610	CTU-12S	+14V RECT
D611	ERD29-08J	+135V RECT
D612	CTU-12S	+7V RECT
D613	RGP15J	AF V RECT-1
D614	RGP15J	AF V RECT-2
D616	MTZJ6.2B	+12V REG
D617	1SS133	PROT
D618	MTZJ5.6B	+12V REF
D619	MTZJ33A	FAST ON/OFF-2
D620	DA204K	+12V REF
D621	MTZJ33A	FAST ON/OFF-3
D622	1SS133	PROT
D623	1SS133	DECOUPLING STBY
D624	1SS133	DECOUPLING DTBY
D630	MTZJ15A	+12V RECT
D801	RGP10G	+27V RECT
D802	RGP10G	+200V RECT
D803	RGP02-17	G2 RECT
D804	GP08D	H CENTER-1
D805	GP08D	H CENTER-2
D806	ERC06-15S	H DAMPER-1
D807	ERC06-15S	H DAMPER-2
D808	ERD29-08J	PIN DAMPER



ĐGC
TO ĐGC
Đ-65 3P WHT :MINI
ĐGC NC ĐGC
ĐGC CHK
THP601
JW197
JW198
LF1603 LFT
C1607 0.0047 250V F
C603 0.0047 250V F
Đ601 Đ45B60L-F
C601 0.0047 250V F
C604 220 400V
C602 0.0047 250V F
C1401 0.33 300V
R1602 1M 1/2W
R1603 2.7 2W :RW
C1604 10mm
29 INCH ONLY
CT603 2200pF 400V
C1606 1M (10)
R1605 8.2M 1W
C1605 0.0022 400V
LIVE COLĐ
T601
TP91
+B
L607 47mH :EL0607
135V
14V
12V
7V
5V
1C608 MCA7812CT
C624 100
L606 22mH
Q603 2SB1357T114EF
C625 1000 16V
L602 0.45mH
Đ611 ER029-08J
C621 100 160V
Đ623 1SS133
R618 560 1W :RS
R619 10k :CHIP
R620 22k :CHIP
Q609 2SD789
Q606 2SC2412-K
R622 10k :CHIP
R636 10k :CHIP
C631 4.7
R631 27k 2W
Đ271 MTZJ13B
Đ272 1SS133
R272 10k :CHIP
Q271 2SC2412-K
R271 680 :CHIP
R273 10k :CHIP
L603 0.45mH
PS601 2A
C614 330p 500V B
Đ624 1SS133
R626 330 :CHIP
Đ630 MTZJ15A
Đ610 CTU-12S
C616 330p 500V B
PS602 2A
Đ612 CTU-12S
C615 1500 25V
R635 10k :CHIP
R634 390 1W :RS
Q607 2SD2096
R629 330 :CHIP
Đ618 MTZJ5.6B
Đ616 MTZJ6.2B
PS603 0.6A
Đ622 1SS133
Đ620 ĐA204K
Q601 2SB1357T114EF
R628 10 :CHIP
C626 10
R621 15k :CHIP
Q605 2SC2412-K
L604 47mH :EL0607
C622 2200 16V
C623 47
IC604 TEA7605
Đ613 RGP15J
L605 55mH
R625 220 1W :RS
Đ614 RGP15J
Q608 2SC2412-K
R624 5.6k :CHIP
C619 2200 16V
C632 0.001 B:CHIP :HT
R633 1k :CHIP
T602
R617 330 :CHIP
Đ617 1SS133
R610 680k 1/2W
Q604 2SA1037-K
C617 100
R613 100k :CHIP
R604 100 :CHIP
Đ619 MTZJ33A
Đ609 MTZJ33A
Đ606 RGP10G
Đ602 RGP10G
Đ607 RGP10G
R623 22k :CHIP
C605 220 35V
R606 1.2k :CHIP
C627 0.001 B:CHIP
R607 *10
C608 4.7
R611 39 :CHIP
R608 18k 3W :RS
R601 2.2 1W :RS
Đ621 MTZJ33A
R603 12 3W
ST-BY +B ADJ
RV601 470
C606 480p CH:CHIP
L601 1.9mH
R616 120k :CHIP
R609 18 :CHIP
C620 0.47 50V :MPS
C611 47
Q602 2SD1548
Đ608 ERC25-06S
C618 330p 2kV
Đ604 GP08Đ
Đ603 GP08Đ
Đ605 GP08Đ
R651 100 :CHIP
C613 0.0022 2kV :PP
R643 0.12 2W
R653 100 10W :RW
R614 100 10W :RW
IC601 TEA2260
C633 100p :CHIP
C612 0.001 100V :PT
R612 1k :CHIP
R600 1
R605 22k :CHIP
C607 63V :MPS
R610 680k 1/2W
R510 5.6k :CHIP
R509 3.9k :CHIP
R501 470 :CHIP
Đ501 1SS133
R505 15k :CHIP
C516 0.001 100V :PT
R514 220 :CHIP
C502 4.7 :CHIP
R502 220 :CHIP
C501 4.7
C503 0.015 400V :MPS
C507 0.33 100V :MPS
R506 8.2k :CHIP
R5504 1M :CHIP
R534 820k :CHIP
CF501 503KHz
R5501 10k :CHIP
C512 0.1 100V :MPS
R538 150k :CHIP
C540 0.001 B:CHIP
C509 0.1 100V :MPS
C508 0.022 250V :MPS
R503 270 :CHIP
C505 0.0015 :PT
R504 1.8k
C504 150p CH:CHIP
R539 150k :CHIP
RV502 10k
R536 2.2M :CHIP
C526 *2 :CHIP
C506 0.022 250V :MPS
H PHASE
C538 0.001 100V :PT
R558 470k :CHIP
R556 100 :CHIP
C537 1
R555 2.2M :CHIP
Đ508 1SS133
Đ-51 18P BLK :HINGE-P
TO J1 BOARĐ J1-51
GNĐ P OUT 27V V ANG V PAR V SAW V CENT V SIZE V SIZE GNĐ GNĐ H PLS ABL 1 ABL 2 12V H CENT GNĐ GNĐ
IC501 TEA2028B
IC502 TDA8170
Đ511 GP08Đ
Đ504 GP08Đ
Đ513 MTZJ4.7B
R535 2.2M
R553 1k 1W :RS
R530 1.2 1/4W :FPRĐ
R549 390 2W
Q505 2SD774-A
Q506 2SB734-A
C522 100
C532 100
R526 220 :FPRĐ
C523 0.001 100V :PT
R537 27k :CHIP
R515 3.3k :CHIP
C511 0.0033 100V :PT
R500 560k :CHIP
C534 220 16V
C519 *1
R524 2.2k :CHIP
R521 100 :CHIP
R520 330 :CHIP
R519 22k :CHIP
R5503 *12
C539 330p :CHIP
R554 330 :CHIP
R542 4.7 :CHIP
R525 1k
C520 0.0022 :CHIP
25 INCH ONLY
AĐJ
R546 27k :CHIP
Đ506 ĐA204K
R541 56k :CHIP
R5506 12k
Q502 2SA1037-K
R550 82k :CHIP
C521 0.1 100V :MPS
R551 2.2M :CHIP
C517 0.33
R523 1k :CHIP
R540 33 :CHIP
C593 330p :CHIP
C518 0.47
R560 330 :CHIP
R570 680
29 INCH ONLY
R531 120k
R532 1k
R545 22k
R527 15k :CHIP
R561 270k
R547 3.3k
R533 0
R5505 10 :CHIP
Đ512 GP08Đ
R544 330 1/2W
C527 0.1 100V :MPS
L501 3.3mH :LF-8L
C533 0.068 100V :MPS
C531 680 25V
R548 1 1W
Đ509 1SS133
C536 10 16V
R543 2.2 1/4W
R518 47k :CHIP
C510 22p 500V
29 INCH ONLY
R510 5.6k :CHIP
R509 3.9k :CHIP
R501 470 :CHIP
Đ501 1SS133
R505 15k :CHIP
C516 0.001 100V :PT
R514 220 :CHIP
C502 4.7 :CHIP
R502 220 :CHIP
C501 4.7
C503 0.015 400V :MPS
C507 0.33 100V :MPS
R506 8.2k :CHIP
R5504 1M :CHIP
R534 820k :CHIP
CF501 503KHz
R5501 10k :CHIP
C512 0.1 100V :MPS
R538 150k :CHIP
C540 0.001 B:CHIP
C509 0.1 100V :MPS
C508 0.022 250V :MPS
R503 270 :CHIP
C505 0.0015 :PT
R504 1.8k
C504 150p CH:CHIP
R539 150k :CHIP
RV502 10k
R536 2.2M :CHIP
C526 *2 :CHIP
C506 0.022 250V :MPS
H PHASE
C538 0.001 100V :PT
R558 470k :CHIP
R556 100 :CHIP
C537 1
R555 2.2M :CHIP
Đ508 1SS133
Đ-51 18P BLK :HINGE-P
TO J1 BOARĐ J1-51
GNĐ P OUT 27V V ANG V PAR V SAW V CENT V SIZE V SIZE GNĐ GNĐ H PLS ABL 1 ABL 2 12V H CENT GNĐ GNĐ
IC501 TEA2028B
IC502 TDA8170
Đ511 GP08Đ
Đ504 GP08Đ
Đ513 MTZJ4.7B
R535 2.2M
R553 1k 1W :RS
R530 1.2 1/4W :FPRĐ
R549 390 2W
Q505 2SD774-A
Q506 2SB734-A
C522 100
C532 100
R526 220 :FPRĐ
C523 0.001 100V :PT
R537 27k :CHIP
R515 3.3k :CHIP
C511 0.0033 100V :PT
R500 560k :CHIP
C534 220 16V
C519 *1
R524 2.2k :CHIP
R521 100 :CHIP
R520 330 :CHIP
R519 22k :CHIP
R5503 *12
C539 330p :CHIP
R554 330 :CHIP
R542 4.7 :CHIP
R525 1k
C520 0.0022 :CHIP
25 INCH ONLY
AĐJ
R546 27k :CHIP
Đ506 ĐA204K
R541 56k :CHIP
R5506 12k
Q502 2SA1037-K
R550 82k :CHIP
C521 0.1 100V :MPS
R551 2.2M :CHIP
C517 0.33
R523 1k :CHIP
R540 33 :CHIP
C593 330p :CHIP
C518 0.47
R560 330 :CHIP
R570 680
29 INCH ONLY
R531 120k
R532 1k
R545 22k
R527 15k :CHIP
R561 270k
R547 3.3k
R533 0
R5505 10 :CHIP
Đ512 GP08Đ
R544 330 1/2W
C527 0.1 100V :MPS
L501 3.3mH :LF-8L
C533 0.068 100V :MPS
C531 680 25V
R548 1 1W
Đ509 1SS133
C536 10 16V
R543 2.2 1/4W
R518 47k :CHIP
C510 22p 500V
29 INCH ONLY
RIBON WIRE WITH ĐIP PIN
TO H1 BOARĐ H1-23
L OUT GNĐ GNĐ R OUT
Đ-23
IC251 TDA2050 L
IC261 TDA2050 R
R557 4.7k :CHIP
R559 6.8k :CHIP
R259 4.7k :CHIP
R251 4.7k :CHIP
C251 1
C253 0.001 B:CHIP
C274 0.47 100V :MPS
R253 10k :CHIP
R252 390
C252 22
C255 3300
R257 15k :CHIP
R274 10k :CHIP
R254 560k :CHIP
R255 10k :CHIP
R267 15k :CHIP
C261 1
R265 10k :CHIP
R261 4.7k
R269 4.7k
C263 0.001 B:CHIP
R262 390
R263 10k
C270 0.47 100V :MPS
C262 22
C265 4700 25V
R270 10k :CHIP
R266 560k :CHIP
R268 1k 1W :RS
R264 4.7 1W :RS
C264 0.1 100V :MPS
Q251 2SC2412-K
Q261 2SC2412-K
L AUDIO
R AUDIO
R258 1k 1W :RS
C254 0.1 100V :MPS
R254 4.7 1W :RS
R029 10k :CHIP
Q005 ĐTC144EK
R059 1k :CHIP
R061 4.7k :CHIP
R003 1k 1/8W :CHIP
R001 470 :CHIP
R002 470 :CHIP
R004 1k :CHIP
R031 22k :CHIP
R079 10k :CHIP
C034 0.1mF :CHIP
R056 10k :CHIP
Đ005 MTZJ5.6B
R027 100 :CHIP
R057 100 :CHIP
C008 100p :CHIP
BTS B05 VSS B05 BLK B05 OUT INIT
NC BLK CFS C2MT AFTL SHP AFT H MUXM OSĐ V OSĐ H
R071 1k 1/8W :CHIP
R072 10k 1/8W :CHIP
R073 10k :CHIP
Q007 4.3 ĐTC144EK
R040 15k :CHIP
C009 100p :CHIP
R066 1k :CHIP
R064 1k :CHIP
Q008 2SC2412-K
R065 1k :CHIP
Q007 2SC2412-K
R063 1k :CHIP
R033 10k :CHIP
R032 10k :CHIP
R070 1k 1/8W :CHIP
Q004 2SA1037-K
R044 100k :CHIP
R045 3.3k :CHIP
C017 0.1 100V :MPS
R046 82k :CHIP
C019 0.047 100V :MPS
R050 5.6k :CHIP
R048 10k :CHIP
R047 10k :CHIP
C016 1000p :CHIP
R043 470 :CHIP
C018 270p :CHIP
R049 10k :CHIP
R078 1k 1/8W :3216
Đ-31 10P GRY :BTO
V IN
V BLANK
Y OUT
7V
V OUT
YC-SWITCH
C OUT
GNĐ
SĐA
SCL
TO B BOARĐ B-
Đ-21 10P GRY :BTOB-P
GNĐ
14V
GNĐ
GNĐ
7V
ST.BY
GNĐ
VIĐEO
S-TV
GNĐ
TO V BOARĐ CNV-1
HUE
ST.BY
MUTE
CHAR
P/ON
GNĐ
+12V
SCP
+BLK
ABL
TO B BOARĐ B-32
R591 820 :CHIP
R593 1.5k :CHIP
R594 8.2k :CHIP
R597 470 :CHIP
C592 100
Q598 2SA1037-K
R592 1k :CHIP
R598 22k 2W :RS
Đ006 MTZJ33A
33V
Đ-32 10P GRY :BTOB-P
Đ-22 10P GRY :BTOB-P
PON
GNĐ
TĐAT
TCLK
GNĐ
R IN
G IN
B IN
BLK
TO V BOARĐ CNV-2
R088 2.7k :CHIP
JW240 10MM
BLK1
B OUT
G OUT
R OUT
GNĐ
BLK
TEXT B
TEXT G
TEXT R
GNĐ
TO B BOARĐ B-3
VIDEO
27V
GNĐ
Đ-88 *
H2
NC
H1
Đ-81 3P :MICRO
TO C BOARĐ C-81
T802 FBT
H2 H1 HV
27V PROT 15V E 40V +B FV ABL FVR C
Đ801 RGP10G
C801 1000 35V
R802 0.47 1/4W :FPRĐ
C802 330p 500V B
R826 100k :CHIP
C825 0.022 250V :MPS
R827 10k :CHIP
R828 2.7k :CHIP
Q801 2SC2412-K
C804 22 250V
R812 *11
R829 1.2k :CHIP
Đ802 RGP10G
VIĐEO
R805 1.2 1/4W :FPRĐ
R806 68k :CHIP
H CENT
Đ-801A 3P WHT :MINI
Đ-801 3P WHT :MINI
Đ805 GP08Đ
Đ804 GP08Đ
L803 10mH
C807 0.15 200V :PT
R811 22 2W
29 INCH ONLY
R810 1k 1/2W :RC
L801 29mH
JW229 (LD)
C806 0.1 100V :MPS
R809 1.8k 1/2W :RC
R816 680 1W :RS
C813 820p 500V B
R815 47 2W :RS
C811 2 200V
C812 1 250V
L810 *9
L806 *8
C815 *3
JW207
JW202
JW204
JW205
JW203
L805
SG801
L804 4.7mH :LF-8L
29 INCH ONLY
T801 H.D.T
Đ806 ERC06-15S
Đ807 ERC06-15S
Đ808 ERĐ29-08J
Q805 2SC2688-L
C824 220p 500V B
R821 10k 1/4W :FPRĐ
C817 *4
C818 0.039 630V 10%:PP
R817 1k :CHIP
R822 1k 1W
C823 0.0047 400V :MPS
R825 0.47 1W
L809
C822 470p B:CHIP
R820 68 1/4W
Q804 2SD1941-06
R807 1k 1W :RS
Đ803 RGP02-17
C819 0.001 2kV
C814 0.001 2kV
C820 0.0082 400V :MPS
R831 2.2 1/4W
C805 0.0047 2kV E
C821 *5
C810 33 160V
135V
200V
33V
27V
12V
Đ-83 2P WHT :MINI
GNĐ GNĐ
TO COATING EARTH ASSY
Đ-82 3P WHT :MINI
G2 200V GNĐ
TO C BOARĐ C-82
Đ-84 6P WHT :MINI
H+ H+ H- H- V- V+
TO J1 BOARĐ J1-44
GNĐ 7V
Đ-18 2P BLK :MICRO
F/R Y/C



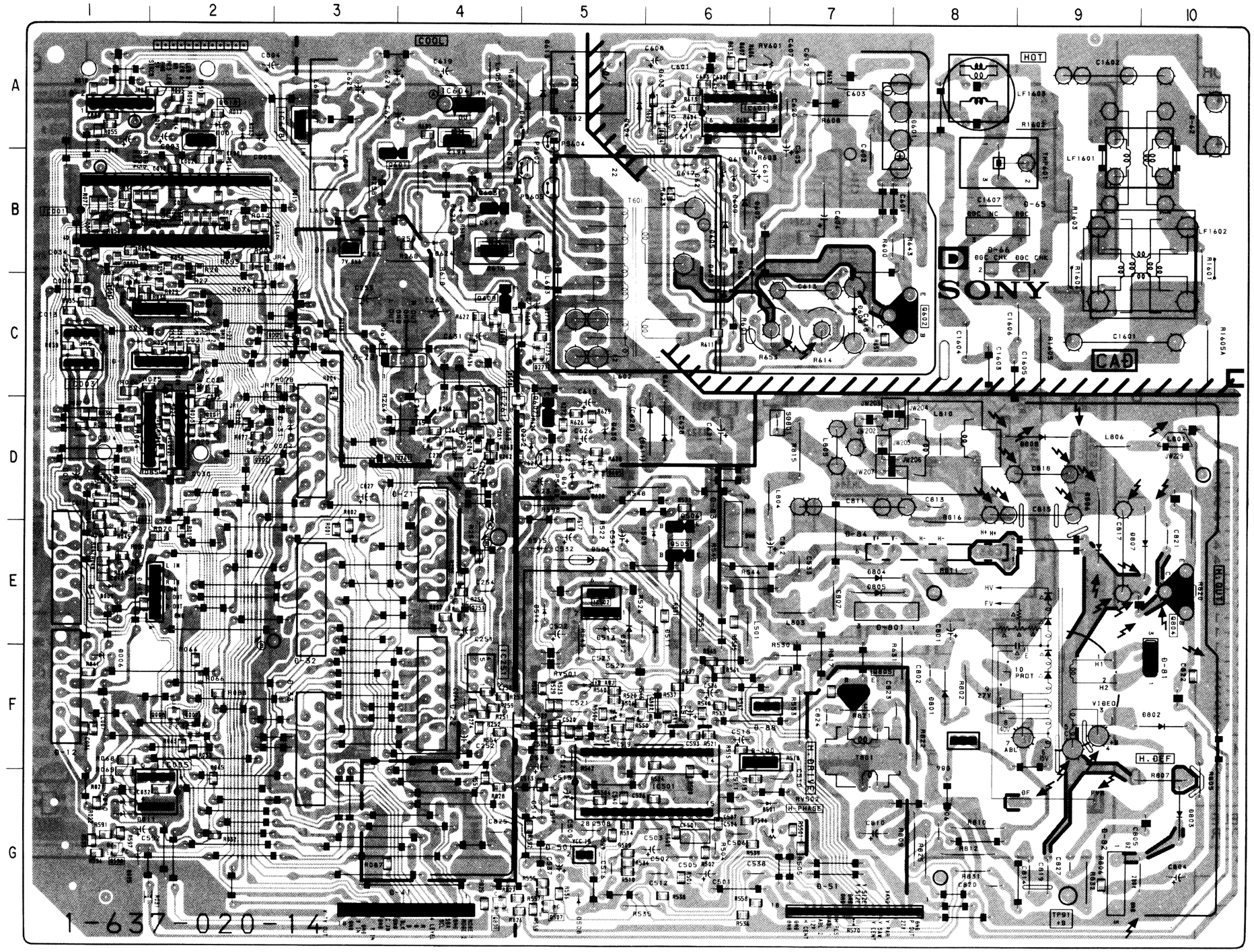
Đ BOARD * MARK

	25 INCH	29 INCH
*1 C519	0.47	0.33
*2 C526	27P	22P
*3 C815	1 200V	0.82 200V
*4 C817	0.015 1.4KV	0.017 1.4KV
*5 C821	680P 2KV	470P 2KV
*6 C1602	0.47 300V	0.47 METALIZED FILM
*7 Đ514	JW (S)	1SS133
*8 L806	DRAM CORE (CDI)	HCC BUST CORE 3.9UH
*9 L810	PMC	PMT
*10 R607	4.7K	5.6K
*11 R812	68K 1/2W	51K 1/2W
*12 R5503	4.7	10

D [TUNING CONTROL, POWER CONTROL, AUDIO OUT, H/V OUT]

NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

– D Board –



IC	
IC001	B – 2
IC002	D – 2
IC003	C – 1
IC005	G – 2
IC251	F – 4
IC261	D – 4
IC501	G – 6
IC502	E – 5
IC601	A – 6
IC604	A – 4
IC608	A – 3

TRANSISTOR	
Q001	D – 2
Q002	D – 2
Q003	D – 1
Q004	E – 1
Q005	C – 1
Q006	C – 1
Q007	F – 2
Q008	F – 2
Q009	C – 3
Q010	A – 2
Q251	E – 4
Q261	D – 4
Q271	C – 5
Q502	F – 5
Q505	E – 6
Q506	E – 6
Q507	H – 5
Q598	G – 1
Q601	B – 3
Q602	C – 8
Q603	B – 4
Q604	A – 6
Q605	D – 5
Q606	C – 4
Q607	D – 5
Q608	C – 4
Q609	C – 4
Q801	H – 4
Q804	E – 10
Q805	F – 7

DIODE	
D001	A – 2
D002	D – 3
D003	A – 2
D005	G – 1
D006	F – 1
D007	A – 2
D009	E – 1
D010	G – 1
D011	G – 1
D012	C – 1
D013	D – 2
D271	C – 5
D272	D – 5
D501	G – 7
D504	E – 5
D506	F – 5
D508	H – 5
D509	E – 6
D511	E – 6
D512	E – 5
D513	E – 5
D514	E – 5
D515	E – 5
D601	A – 8
D602	C – 6
D603	A – 6
D604	A – 5
D605	B – 6
D606	B – 6
D607	B – 6
D608	C – 7
D609	B – 6
D610	B – 4
D611	D – 6
D612	A – 4
D613	A – 5
D614	A – 5
D616	D – 5
D617	B – 6
D618	D – 5
D619	B – 6
D620	D – 5
D621	B – 6
D622	D – 5
D623	B – 4
D624	B – 4
D630	D – 5
D801	F – 8
D802	F – 10
D803	G – 10
D804	E – 7
D805	E – 7
D806	E – 9
D807	E – 10
D808	D – 9

VARIABLE RESISTOR	
RV501	F – 5
RV502	G – 7
RV601	A – 6

TP	
TP91	J – 9

IC	
IC301	A – 2
IC302	B – 5
IC303	D – 5
IC331	C – 1
IC332	D – 3
IC1301	B – 4

TRANSISTOR	
Q301	B – 4
Q303	A – 6
Q305	A – 4
Q306	D – 4
Q311	B – 2
Q312	B – 2
Q313	B – 2
Q316	B – 2
Q330	C – 5
Q331	C – 3
Q332	D – 6
Q333	D – 5
Q334	C – 4
Q335	C – 4
Q381	B – 5
Q382	B – 4
Q1301	C – 4
Q1305	C – 5
Q1306	C – 4

DIODE	
D301	A – 1
D302	A – 2
D303	A – 2
D304	B – 2
D305	A – 1
D307	A – 5
D309	A – 5
D310	A – 4
D311	A – 4
D312	A – 4
D313	A – 4
D314	A – 3
D315	A – 1
D316	A – 1
D317	A – 1
D318	A – 1
D319	A – 1
D320	A – 1
D331	C – 2
D332	C – 2
D333	B – 2
D350	D – 2

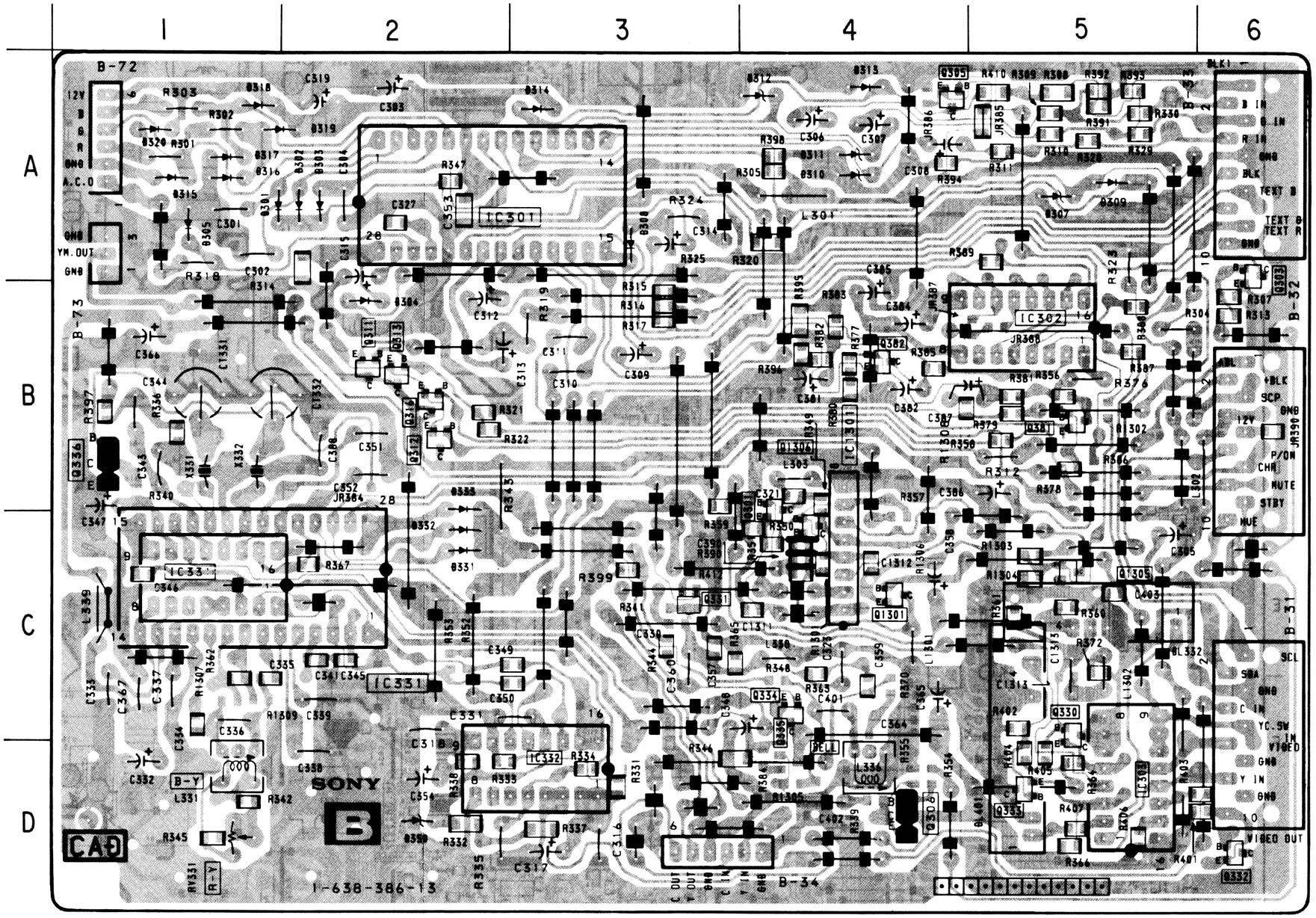
TRIMMER	
CT331	B – 1
CT332	B – 1

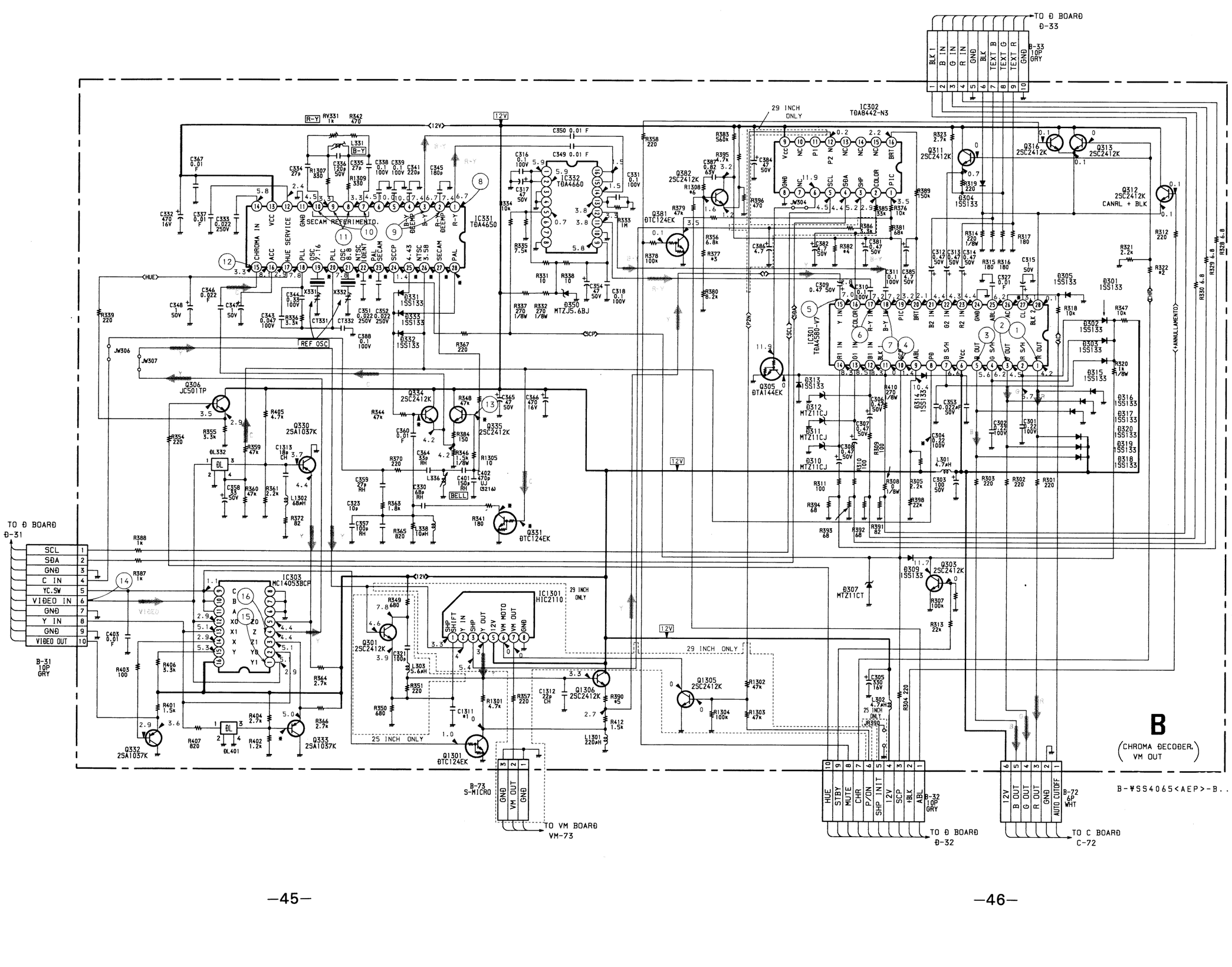
VARIABLE RESISTOR	
RV331	D – 1

COIL	
L331	D – 1
L332	D – 4

B [CHROMA DECODER]

– B Board –





B Board

IC301	TDA4580-V7	VI
IC302	TDA8442-N3	D/
IC303	MC14053BCP	Y/
IC331	TDA4650	CO
IC332	TDA4660V2	1H
IC1301	HIC2110	SH
Q301	2SC2412K	Y
Q303	2SC2412K	ST
Q305	DTA144EK	AN
Q306	JC501TP	VI
Q311	2SC2412K	ON
Q312	2SC2412K	CA
Q313	2SC2412K	ON
Q316	2SC2412K	FA
Q330	2SA1037K	VI
Q331	DTC124EK	NT
Q332	2SA1037K	VI
Q333	2SA1037K	Y
Q334	2SC2412K	PA
Q335	2SC2412K	SE
Q381	DTC124EK	MU
Q382	2SC2412K	AB
Q1301	DTC124EK	Y
Q1305	2SC2412K	Y
Q1306	2SC2412K	Y
D301	1SS133	AC
D302	1SS133	AC
D303	1SS133	AC
D304	1SS133	DE
D305	1SS133	PR
D307	MTZ11CJ	PR
D309	1SS133	PR
D310	MTZ11CJ	PR
D311	MTZ11CJ	PR
D312	MTZ11CJ	PR
D313	1SS133	PR
D314	1SS133	PR
D315	1SS133	PR
D316	1SS133	PR
D317	1SS133	PR
D318	1SS133	PR
D319	1SS133	PR
D320	1SS133	PR
D331	1SS133	SE
D332	1SS133	SE
D333	1SS133	SE
D350	MTZ5.6BJ	PR

		25 INCH
*1	C1311	56P
*2	R322	1K
*3	R377	560
*4	R382	220K
*5	R390	220
*6	R1308	0

		PAL	SECA
IC301	(8)	0.1	0.1
	(26)	6.7	6.8
IC331	(19)	3.1	3.6
	(21)	3.0	3.5
	(22)	5.6	5.6
	(23)	7.5	7.0
	(25)	0.1	0.1
	(26)	0.1	0.1
	(27)	0.1	5.8
	(28)	5.9	0.1
Q331	(B)	0.1	0.1
	(C)	0.3	0.4
Q333	(B)	4.4	4.4
Q334	(B)	4.9	0.1
Q335	(B)	0.1	4.8

B Board

IC301	TDA4580-V7	VIDEO PROCESSOR
IC302	TDA8442-N3	D/A CONVERTER IC BUS
IC303	MC14053BCP	Y/C COMP SW
IC331	TDA4650	COLOR PROCESSOR
IC332	TDA4660V2	1H-DELAY
IC1301	HIC2110	SHARPNESS CONTROL
Q301	2SC2412K	Y AMP(25" ONLY)
Q303	2SC2412K	STBY SW
Q305	DTA144EK	ANTI PRIORITY SCART
Q306	JC501TP	VIDEO BUF(HUE)
Q311	2SC2412K	ON SCREEN DISPLAY SW
Q312	2SC2412K	CANRL +BLK
Q313	2SC2412K	ON SCREEN DISPLAY
Q316	2SC2412K	FAS PICTURE MUTE SW
Q330	2SA1037K	VIDEO AMP
Q331	DTC124EK	NTSC SW
Q332	2SA1037K	VIDEO BUFF
Q333	2SA1037K	Y AMP
Q334	2SC2412K	PAL/NTSC SW
Q335	2SC2412K	SECAM SW
Q381	DTC124EK	MUTE
Q382	2SC2412K	ABL
Q1301	DTC124EK	Y BUFF
Q1305	2SC2412K	Y OUT
Q1306	2SC2412K	Y OUT
D301	1SS133	ACO AT STBY
D302	1SS133	ACO AT STBY
D303	1SS133	ACO AT STBY
D304	1SS133	DECOUPLING BLK
D305	1SS133	PROT
D307	MTZ11CJ	PROT
D309	1SS133	PROT
D310	MTZ11CJ	PROT
D311	MTZ11CJ	PROT
D312	MTZ11CJ	PROT
D313	1SS133	PROT
D314	1SS133	PROT
D315	1SS133	PROT
D316	1SS133	PROT
D317	1SS133	PROT
D318	1SS133	PROT
D319	1SS133	PROT
D320	1SS133	PROT
D331	1SS133	SECAM SW
D332	1SS133	SECAM SW
D333	1SS133	SECAM SW
D350	MTZ5.6BJ	PROT

		25 INCH	29 INCH
*1	C1311	56P	33P
*2	R322	1K	1.2K
*3	R377	560	2.2K
*4	R382	220K	180K
*5	R390	220	100
*6	R1308	0	4.7K

		PAL	SECAM	NTSC3.58	NTSC4.43
IC301	(8)	0.1	0.1	5.8	0.1
	(26)	6.7	6.8	5.1	6.5
IC331	(19)	3.1	3.6	3.1	2.8
	(21)	3.0	3.5	2.9	2.7
	(22)	5.6	5.6	7.1	7.2
	(23)	7.5	7.0	5.6	5.6
	(25)	0.1	0.1	0.1	5.8
	(26)	0.1	0.1	5.8	0.1
	(27)	0.1	5.8	0.1	0.1
	(28)	5.9	0.1	0.1	0.1
Q331	(B)	0.1	0.1	5.8	0.1
	(C)	0.3	0.4	0	0.8
Q333	(B)	4.4	4.4	4.4	4.4
Q334	(B)	4.9	0.1	4.8	4.8
Q335	(B)	0.1	4.8	0.1	0.1

B BOARD WAVEFORMS

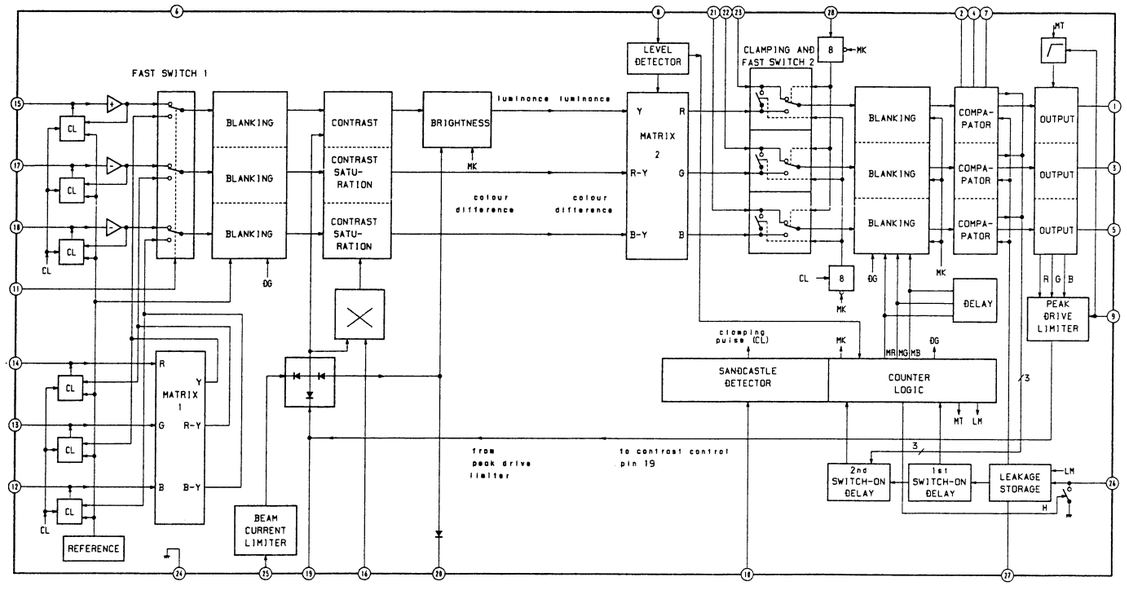
① PAL, SECAM 4.8 Vp-p (H)	① NTSC 3.58/4.43 5.0Vp-p (H)	② PAL, SECAM 4.8Vp-p (H)
② NTSC 3.58/4.43 4.8Vp-p (H)	③ PAL, SECAM 4.8Vp-p (H)	③ NTSC 3.58/4.43 4.8Vp-p (H)
④ 9.5Vp-p (H)	⑤ PAL 0.4Vp-p (H)	⑤ SECAM 0.36Vp-p (H)
⑤ NTSC 3.58/4.43 0.46Vp-p (H)	⑥ PAL, SECAM 0.9Vp-p (H)	⑥ NTSC 3.58/4.43 0.7Vp-p (H)
⑦ PAL, SECAM 1.1 Vp-p (H)	⑦ NTSC 3.58/4.43 1.25Vp-p (H)	⑧ PAL 0.5Vp-p (H)
⑧ SECAM 1.1Vp-p (H)	⑧ NTSC 3.58/4.43 0.4Vp-p (H)	⑨ PAL 0.6Vp-p (H)

B-SS4065<AEP>-B<WAVELIST>-1

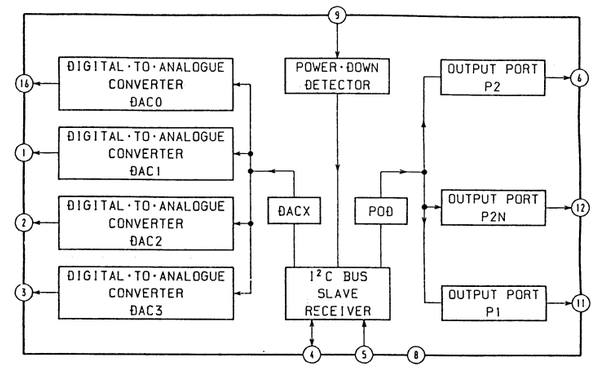
⑨ SECAM 1.5 Vp-p (H)	⑨ NTSC 3.58/4.43 0.6Vp-p (H)	⑩ SECAM 0.75Vp-p (H)
⑪ SECAM 0.2Vp-p (H)	⑫ PAL 0.2Vp-p (H)	⑫ SECAM 0.12Vp-p (H)
⑫ NTSC 3.58/4.43 0.17Vp-p (H)	⑬ PAL 0.4Vp-p (H)	⑬ SECAM 0.12Vp-p (H)
⑬ NTSC 3.58/4.43 0.3Vp-p (H)	⑭ PAL 1.25 Vp-p (H)	⑭ SECAM 1.25Vp-p (H)
⑭ NTSC 3.58/4.43 1.1Vp-p (H)	⑮ PAL 1.25Vp-p (H)	⑮ SECAM 1.25 Vp-p (H)
⑮ NTSC 3.58/4.43 1.2Vp-p (H)	⑯ PAL, SECAM 0.5Vp-p (H)	⑯ NTSC 3.58/4.43 0.5Vp-p (H)

B-SS4065<AEP>-B<WAVELIST>-2

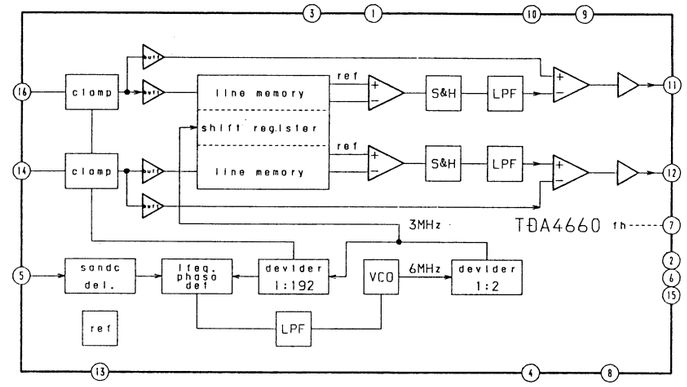
B Board IC301 TDA4580V7



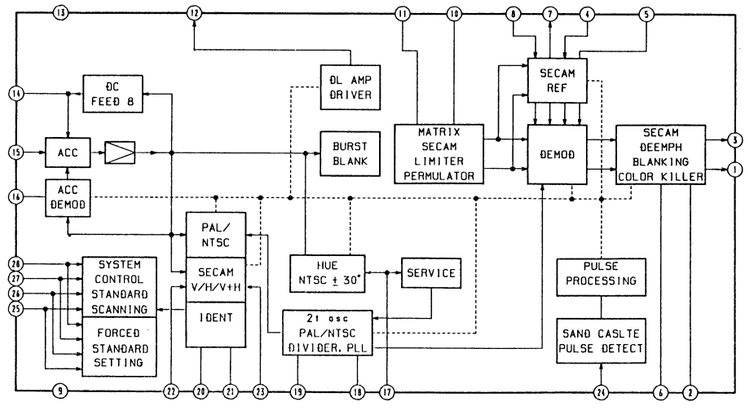
B Board IC302 TDA8442-N3

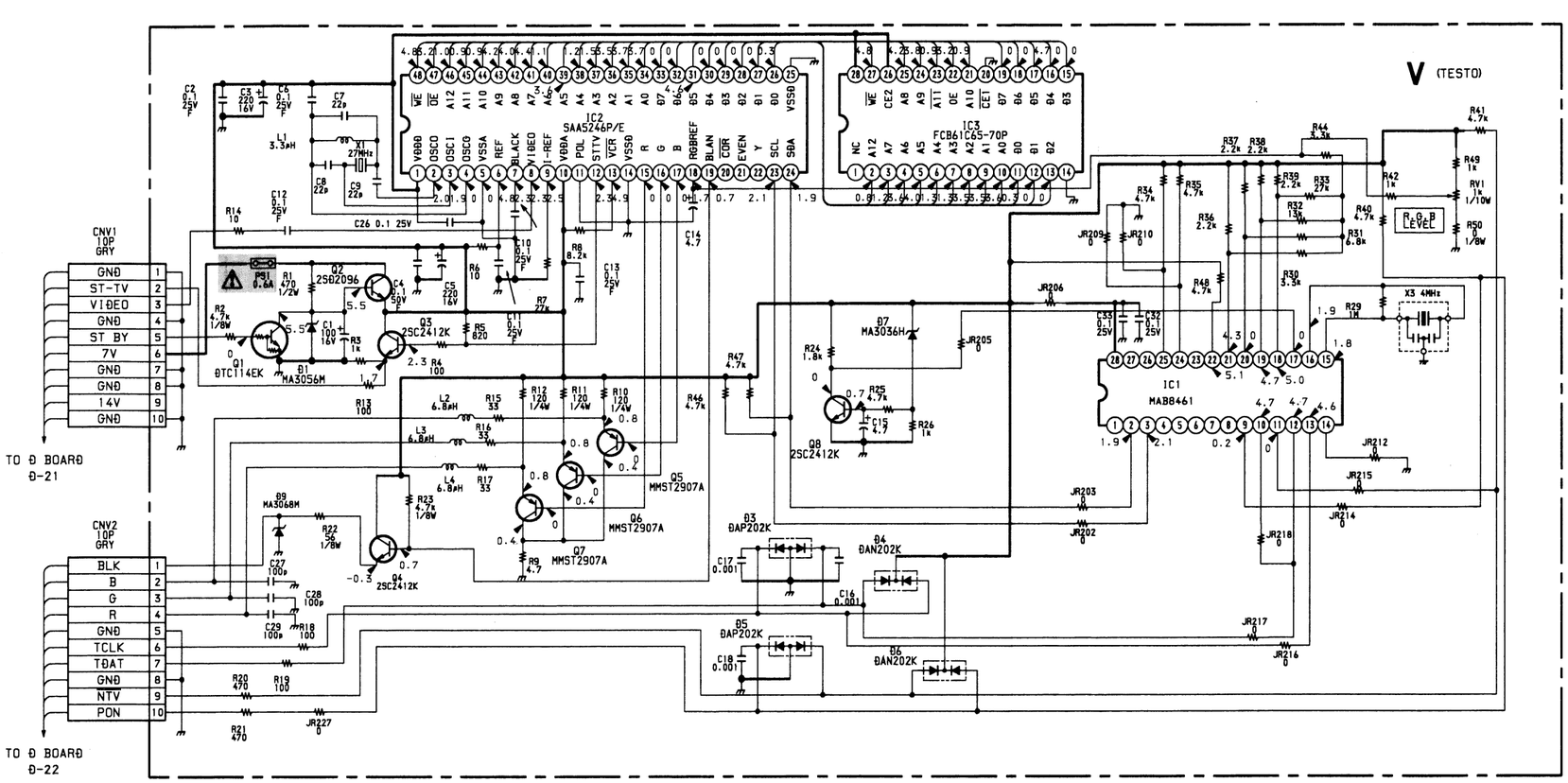


B Board IC332 TDA4660V2



B Board IC331 TDA4650





B-SS4065<AEP>-C<WAVELIST>

C BORAD WAVEFORMS

① 25 Vp-p (H)	② 90 Vp-p (H)	③ 100Vp-p (H)
④ 100Vp-p (H)		

C BOARÐ
* MARK

	25 INCH	29 INCH
*1 C703	270P	330P
*2 C705	220P	270P
*3 C712	270P	330P
*4 R737	820K	470K

B-SS4065<AEP>-V..

V Board

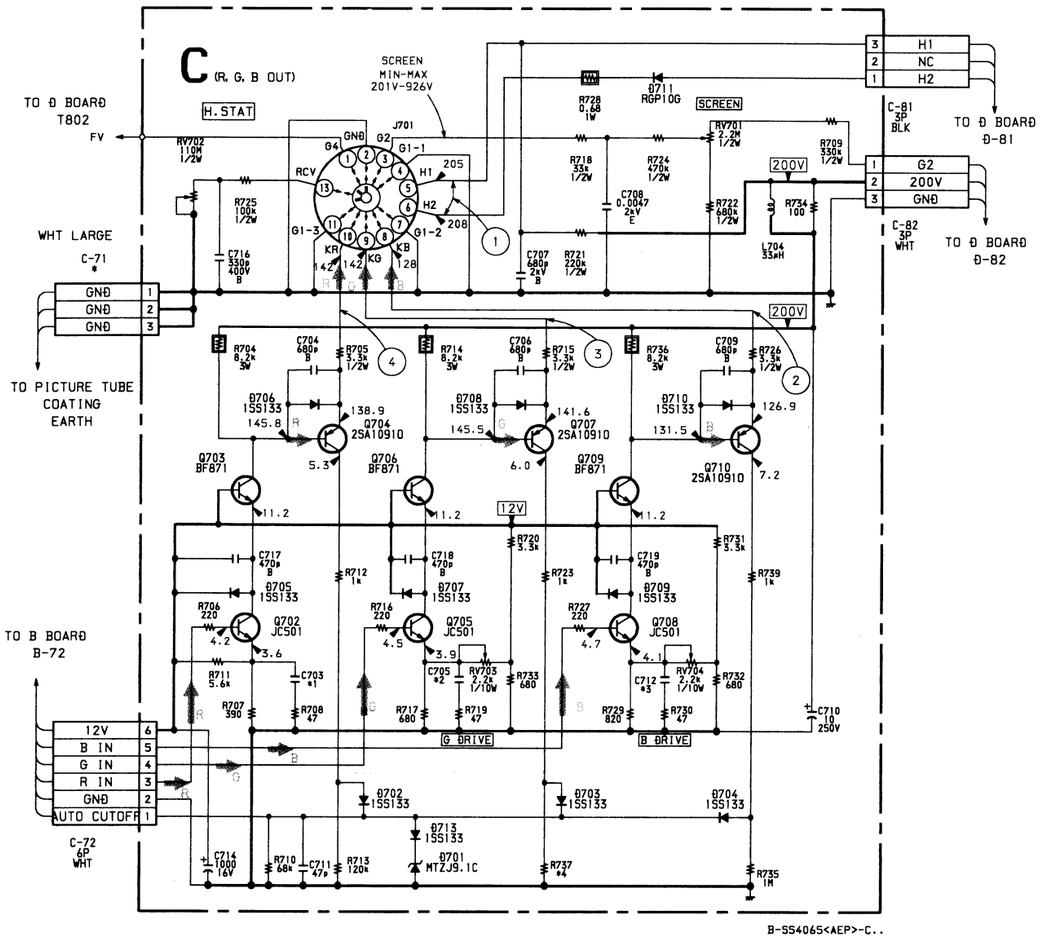
IC1	MAB8461	MICRO-CONT
IC2	SAA5246P/E	IVT
IC3	FCB61C65-70P	STATIC-RAM
Q1	DTC114EK	STAND BY
Q2	2SD2096	5V REG
Q3	2SC2412K	SYNC BUFFER
Q4	2SC2412K	BLK OUT
Q5	MMST2907A	B OUT
Q6	MMST2907A	G OUT
Q7	MMST2907A	R OUT
Q8	2SC2412K	RESET
D1	MA3056M	5V REG
D3	DAP202K	PROTEC
D4	DAN202K	PROTEC
D5	DAP202K	PROTEC
D6	DAN202K	PROTEC
D7	MA3036H	PROTEC
D9	MA3068M	PROTEC

	③
H)	100Vp-p (H)

VELIST>

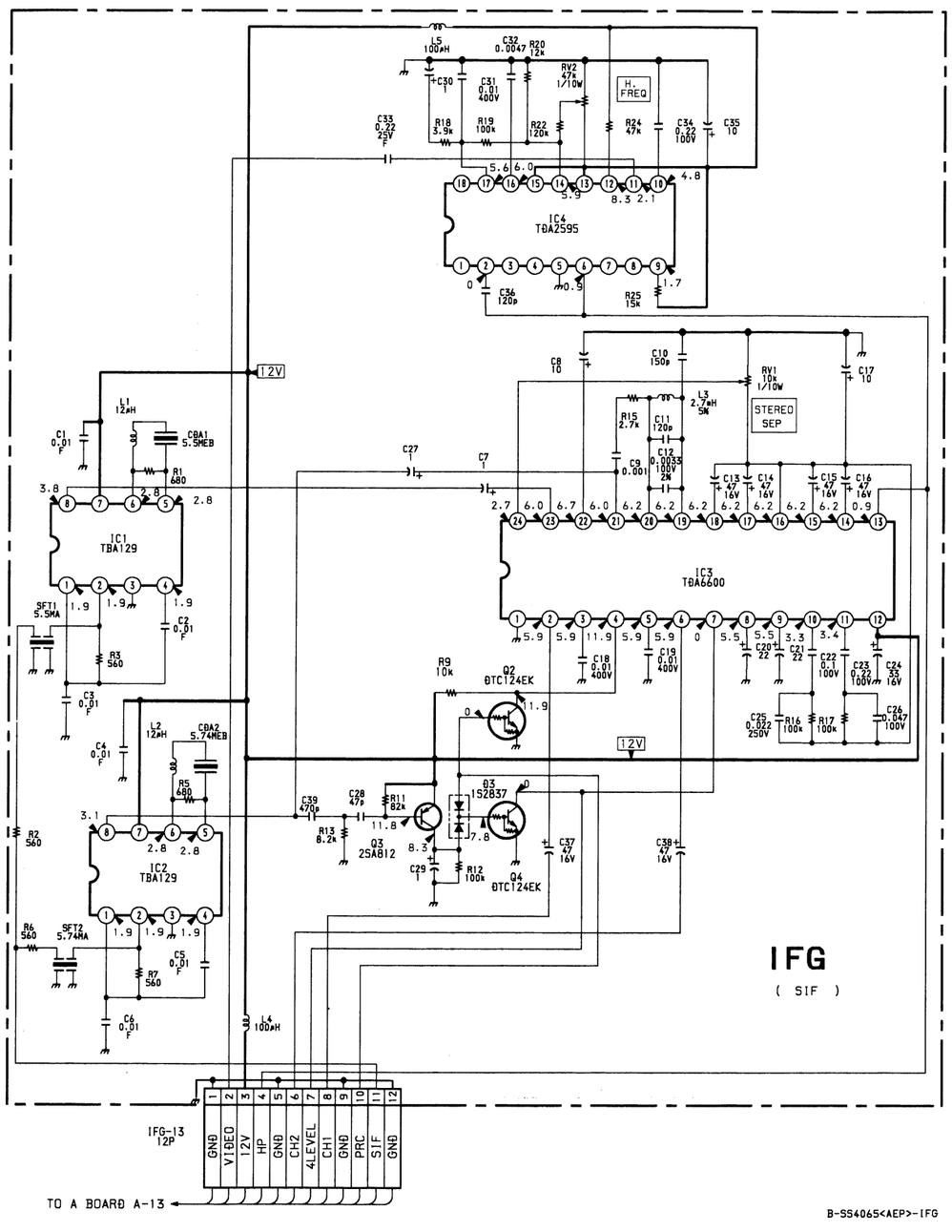
ARD
RK

	25 INCH	29 INCH
	270P	330P
	220P	270P
	270P	330P
	820K	470K



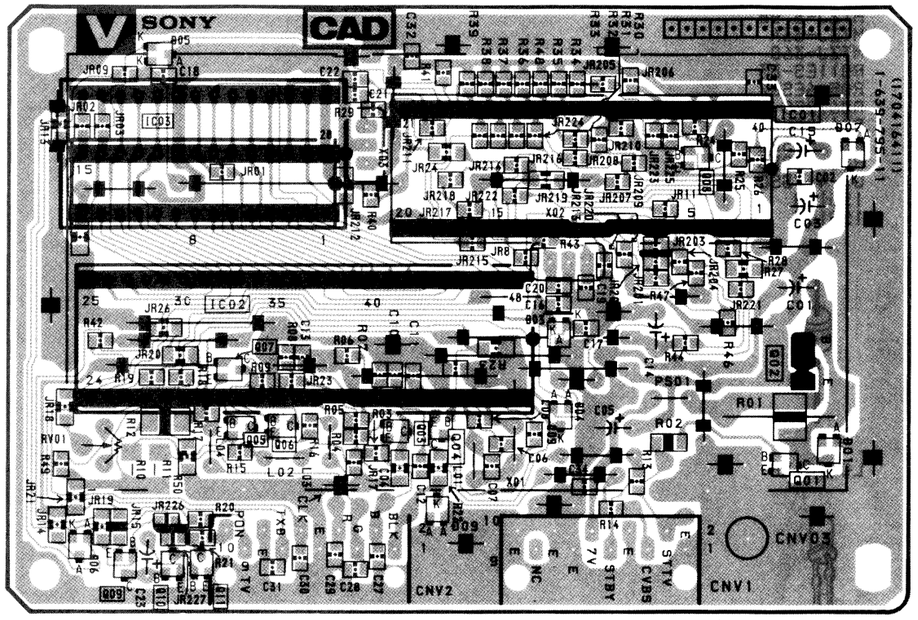
C Board

Q702	JC501	R DRIVE
Q703	BF871	R OUT
Q704	2SA1091O	ACO MEASURING
Q705	JC501	G DRIVE
Q706	BF871	G OUT
Q707	2SA1091O	ACO MEASURING
Q708	JC501	B DRIVE
Q709	BF871	B OUT
Q710	2SA1091O	ACO MEASURING
D701	MTZJ9.1C	PROTECT
D702	1SS133	PROTECT
D703	1SS133	PROTECT
D704	1SS133	PROTECT
D705	1SS133	PROTECT
D706	1SS133	PROTECT
D707	1SS133	PROTECT
D708	1SS133	PROTECT
D709	1SS133	PROTECT
D710	1SS133	PROTECT
D711	RGP10G	HEATING VOLTAGE REC
D713	1SS133	PROTECT

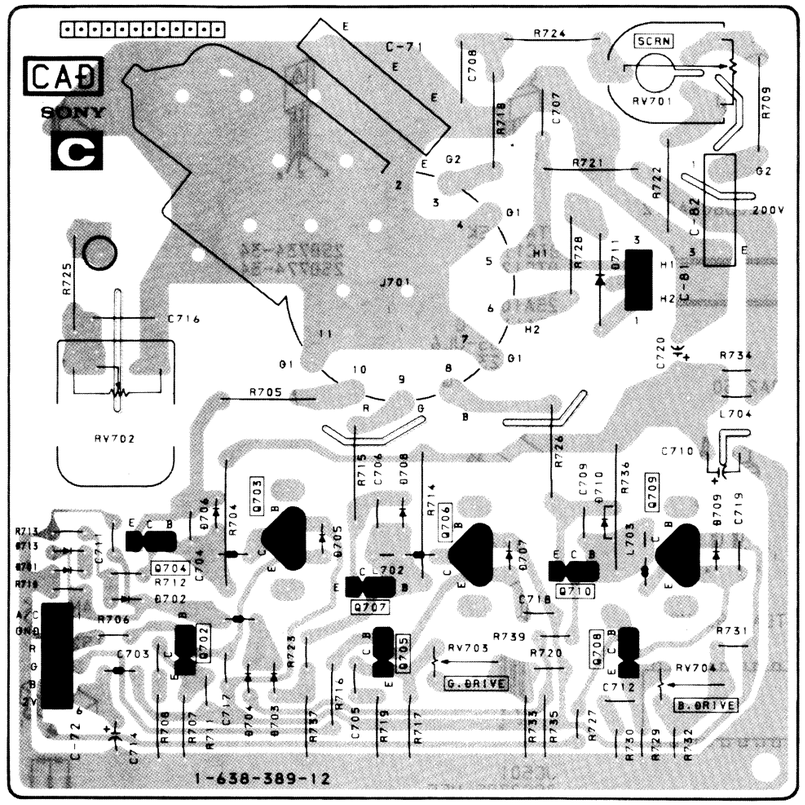


V [TELE TEXT] **IFG** [SIF] **C** [R, G, B OUT]

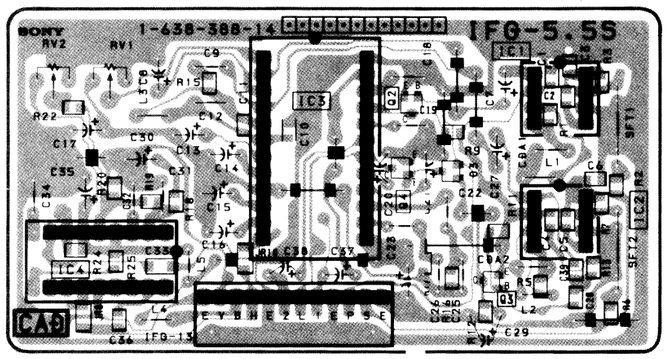
– V Board –



– C Board –

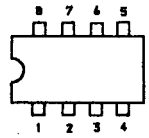


– IFG Board –

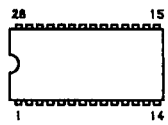


5-4. SEMICONDUCTORS

BA4558
RC4558P
SDA2546
TBA129
TEA2014A
TEA2031A

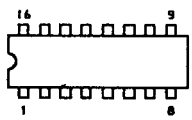


CXA1114P
FCB61C65-70P
MAB8461P-W208
TDA4580-V7
TDA4650-V4
TDA6200
TEA2028B

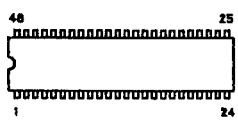


LM7812CT
TEA7605

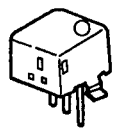
MC14051BCP
MC14053BCP
PCF8574
TDA4660V2
TDA8442-N3
TEA2260
μPD4053BC



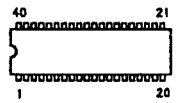
SAA5246P/E



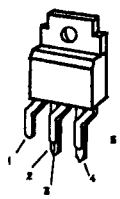
SBX1610-11



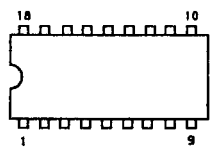
SDA20560-A012



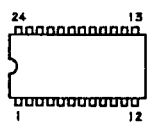
TDA2050



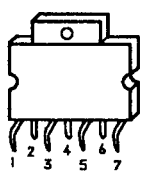
TDA2595-V9



TDA6600-2

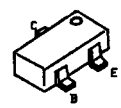


TDA8170



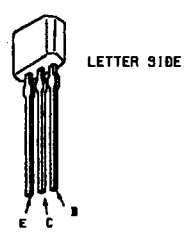
BF871

DTA144EK
DTC114EK
DTC124EK
DTC144EK
2SA1037K
2SA1162-G
2SB1295-UL6
2SC1623-L5L6
2SC2412K-QR



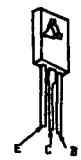
DTC144ES

JC501
2SC2785-HFE



2SA1091-O
2SD789-34

2SA1220A-P
2SC2688-LK



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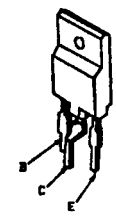
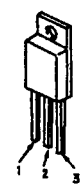
2SD774-34

2SD1548-LB



2SD2096-EF

CTU-12S



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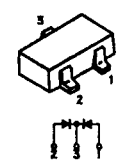
MA152WK
1S2837



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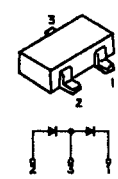
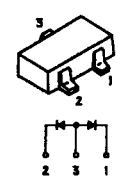
1SS226



DAP202K



ERC06-15S
ERC25-06S
RGP10G
RU-3AM

MTZJ-13B
MTZJ-15A
MTZJ-3.9B
MTZJ-33A
MTZJ-36Ð
RÐ11ES-B3
RÐ5.6ESB2
RÐ6.2ES-B2
RÐ6.8ESB2
RÐ7.5ESB2
RÐ9.1ESB3
UZ-4.7BSC
1SS119
1SS133

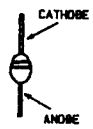
RGP02-17

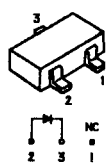
LÐ-201VR

ERÐ29-08J

RÐ3.6M-B2
RÐ5.6M-B2
RÐ6.8M-B2

GP08Ð





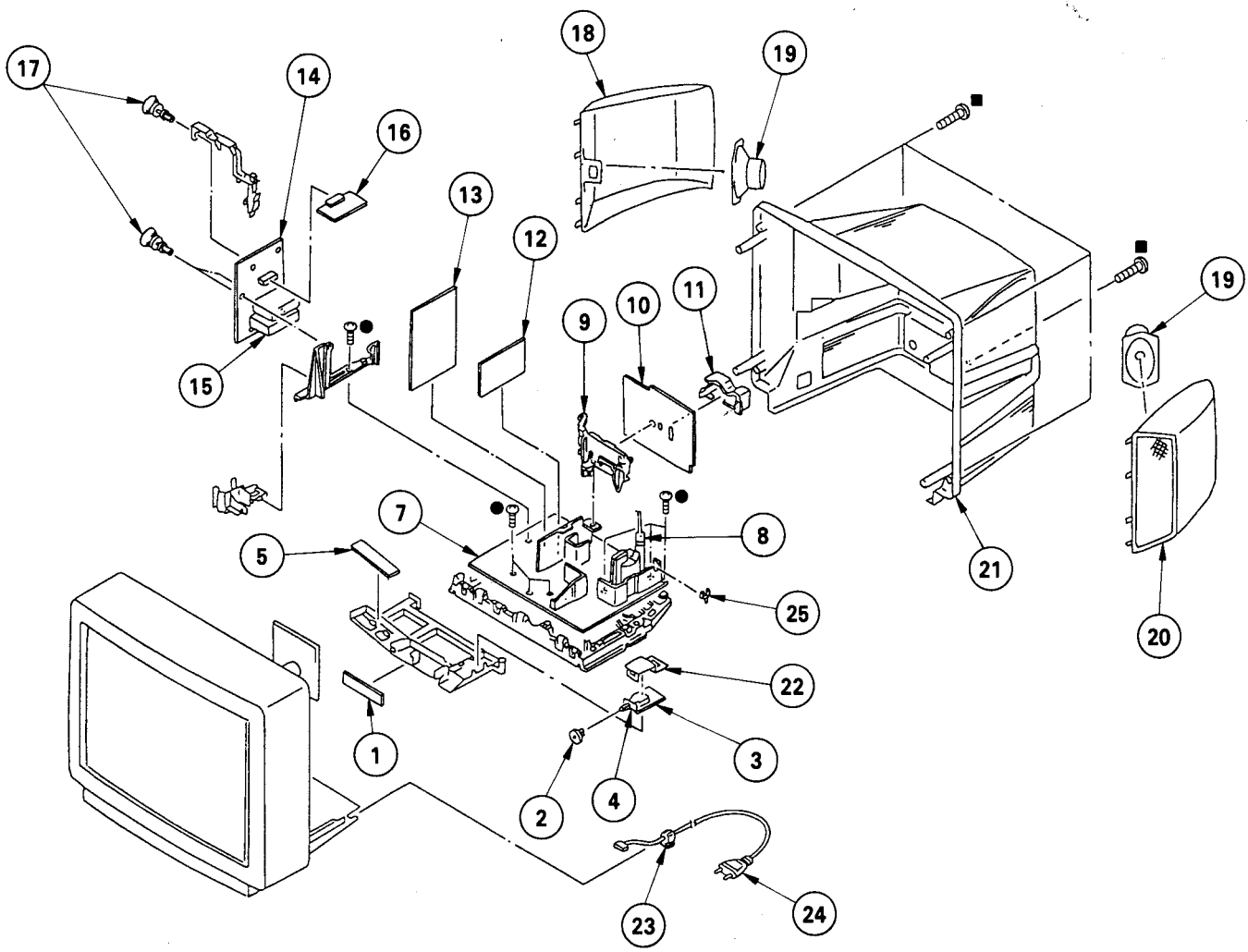
SECTION 6
EXPLODED VIEWS

NOTE:
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " ★ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

6-1. CHASSIS

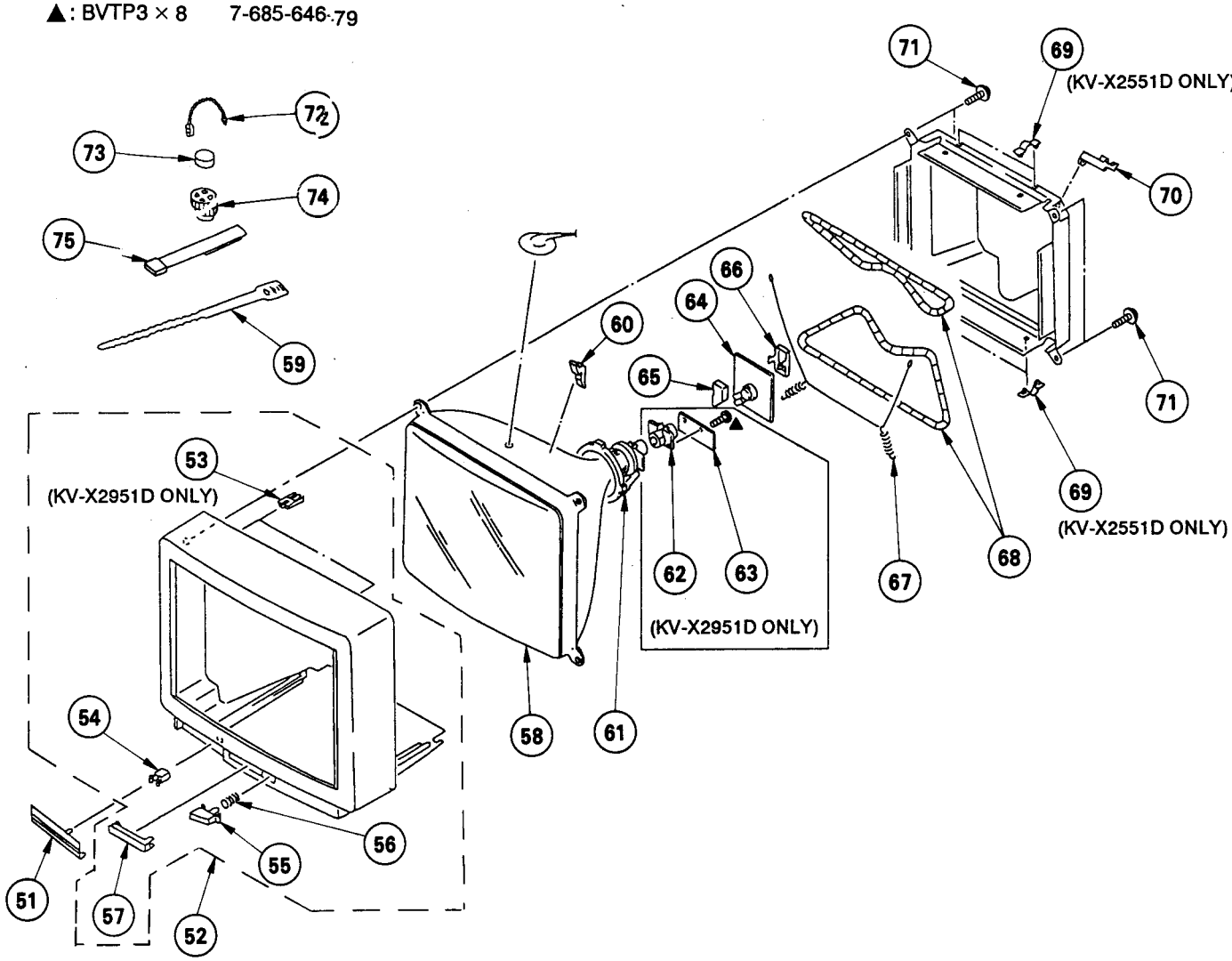
●: BVTP3 × 12 7-685-648-79
■: BVTP4 × 16 7-685-663-79



REF.NO.	PART NO.	DESCRIPTION	REMARK
1	*1-638-392-11	H2 BOARD	
2	4-386-611-01	COVER, SWITCH	
3	*1-638-390-11	F BOARD	
4	⚠1-571-433-12	SWITCH, PUSH (AC POWER)	
5	*1-638-744-12	H1 BOARD	
7	*A-1642-031-A	D BOARD, COMPLETE (KV-X2551D ONLY)	
	*A-1642-032-A	D BOARD, COMPLETE (KV-X2951D ONLY)	
8	⚠1-439-416-51	TRANSFORMER ASSY, FLYBACK (UX-1650)	
9	*4-386-624-11	BRACKET, J	
10	*A-1651-018-A	J1 BOARD, COMPLETE (KV-X2551D ONLY)	
	*A-1651-020-A	J1 BOARD, COMPLETE (KV-X2951D ONLY)	
11	4-200-014-01	BRACKET, TERMINAL	
12	*A-1645-013-A	V BOARD, COMPLETE	
13	*A-1621-033-A	B BOARD, COMPLETE (KV-X2551D ONLY)	
	*A-1621-027-A	B BOARD, COMPLETE (KV-X2951D ONLY)	
14	*A-1632-022-A	A BOARD, COMPLETE	
15	⚠1-465-301-11	TUNER, ET (UV-816(PLL))	
16	*A-1654-004-A	IFG BOARD, COMPLETE	
17	4-386-618-01	RIVET, T TYPE	
18	X-4200-088-1	BAFFLE (L) ASSY, BOARD	
19	1-544-727-11	SPEAKER (7.5X13CM)	
20	X-4200-087-1	BAFFLE (R) ASSY, BOARD	
21	4-034-786-01	COVER, REAR (KV-X2551D ONLY)	
	4-200-892-01	COVER, REAR (KV-X2951D ONLY)	
22	4-200-274-01	COVER, POWER SWITCH (KV-X2551D ONLY)	
	4-200-757-01	COVER, POWER SWITCH (KV-X2951D ONLY)	
23	⚠4-389-201-03	HOLDER, AC CORD	
24	⚠1-590-501-11	CORD, POWER (WITH NOISE FILTER)	
25	*3-646-071-00	HOLDER, WIRE	

6-2. PICTURE TUBE

▲: BVTP3 × 8 7-685-646-79



REF.NO.	PART NO.	DESCRIPTION	REMARK
51	4-200-889-01	DOOR	
52	X-4030-156-1	CABINET ASSY (WITH BEZEL ASSY) 54~57	(KV-X2551D ONLY)
	X-4200-089-1	CABINET ASSY (WITH BEZEL ASSY) 53~57	(KV-X2951D ONLY)
53	4-382-745-01	HOLDER, RC (KV-X2951D ONLY)	
54	4-392-036-01	CATCHER, PUSH	
55	4-200-886-01	BUTTON, POWER	
56	4-329-112-21	SPRING (KV-X2551D ONLY)	
	4-329-112-51	SPRING (KV-X2951D ONLY)	
57	4-200-148-01	WINDOW, ORNAMENTAL	
58	⚠ 8-733-231-05	PICTURE TUBE (A59JWC61X)	(KV-X2551D ONLY)
	⚠ 8-733-831-05	PICTURE TUBE (A68JYL61X)	(KV-X2951D ONLY)
59	3-701-007-00	BAND, BINDING	
60	3-704-495-01	SPACER, DY	
61	⚠ 1-451-311-21	DEFLECTION YOKE (Y25FXA)	(KV-X2551D ONLY)
	⚠ 1-451-313-21	DEFLECTION YOKE (Y29FXA)	(KV-X2951D ONLY)
62	⚠ 1-452-509-42	NECK ASSY, PICTURE TUBE (NA-308)	(KV-X2951D ONLY)

REF.NO.	PART NO.	DESCRIPTION	REMARK
63	*1-634-193-11	VM BOARD (KV-X2951D ONLY)	
64	*A-1638-011-A	C BOARD, COMPLETE (KV-X2551D ONLY)	
	*A-1638-013-A	C BOARD, COMPLETE (KV-X2951D ONLY)	
65	*4-379-167-01	COVER (MAIN), CV	
66	*4-379-160-01	COVER (REAR LID), CV	
67	4-303-774-99	SPRING (KV-X2551D ONLY)	
	4-369-318-00	SPRING, TENSION (KV-X2951D ONLY)	
68	⚠ 1-460-091-11	COIL, DEGAUSS (KV-X2551D ONLY)	
	⚠ 1-426-535-11	COIL, DEGAUSSING (KV-X2951D ONLY)	
69	*4-385-916-01	HOLDER (D) (KV-X2551D ONLY)	
70	*4-387-284-01	HOLDER, LEAD	
71	4-373-263-01	SCREW (M), PT	
72	4-308-870-00	CLIP, LEAD WIRE	
73	1-452-032-00	MAGNET, DISK; 10MM ϕ	
74	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM ϕ	
75	X-4387-214-1	PERMALLOY ASSY, CORRECTION	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

SECTION 7
ELECTRICAL PARTS LIST

B

NOTE:

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

When indicating parts by reference number, please include the board name.

CAPACITORS
- MF : μF, PF : μμF

COILS
- MMH : mH, UH : μH

RESISTORS
- All resistors are in ohms
- F : nonflammable

REF.NO.	PART NO.	DESCRIPTION			REMARK
	*A-1621-033-A	B BOARD, COMPLETE (KV-X2551D ONLY)			
		**********			
	*A-1621-027-A	B BOARD, COMPLETE (KV-X2951D ONLY)			
		**********			
		<CONNECTOR>			
B31	*1-565-393-11	CONNECTOR, BOARD TO BOARD			
B32	*1-565-393-11	CONNECTOR, BOARD TO BOARD			
B33	*1-565-393-11	CONNECTOR, BOARD TO BOARD			
B72	*1-568-881-51	PIN, CONNECTOR 6P			
B73	*1-568-878-51	PIN, CONNECTOR 3P (KV-X2951D ONLY)			
		<CAPACITOR>			
C301	1-137-031-11	FILM	0.22MF	10%	100V
C302	1-137-031-11	FILM	0.22MF	10%	100V
C303	1-124-122-11	ELECT	100MF	20%	50V
C304	1-137-031-11	FILM	0.22MF	10%	100V
C305	1-124-119-00	ELECT	330MF	20%	16V
C306	1-124-902-00	ELECT	0.47MF	20%	50V
C307	1-124-902-00	ELECT	0.47MF	20%	50V
C308	1-124-902-00	ELECT	0.47MF	20%	50V
C309	1-124-902-00	ELECT	0.47MF	20%	50V
C310	1-137-098-11	FILM	0.1MF	10%	100V
C311	1-137-098-11	FILM	0.1MF	10%	100V
C312	1-124-902-00	ELECT	0.47MF	20%	50V
C313	1-124-902-00	ELECT	0.47MF	20%	50V
C314	1-124-902-00	ELECT	0.47MF	20%	50V
C315	1-124-903-11	ELECT	1MF	20%	50V
C316	1-137-098-11	FILM	0.1MF	10%	100V
C317	1-124-910-11	ELECT	47MF	20%	50V
C318	1-137-098-11	FILM	0.1MF	10%	100V
C321	1-163-117-00	CERAMIC CHIP	100PF	5%	50V (KV-X2551D ONLY)
C323	1-102-947-00	CERAMIC	10PF	0.5PF	50V
C327	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C330	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C331	1-137-098-11	FILM	0.1MF	10%	100V
C332	1-126-103-11	ELECT	470MF	20%	16V
C333	1-137-102-11	FILM	0.022MF	10%	250V
C334	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C335	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C336	1-102-816-00	CERAMIC	120PF	5%	50V
C337	1-101-004-00	CERAMIC	0.01MF		50V
C338	1-137-098-11	FILM	0.1MF	10%	100V
C339	1-137-098-11	FILM	0.1MF	10%	100V
C341	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C343	1-137-094-11	FILM	0.047MF	10%	100V
C344	1-137-033-11	FILM	0.33MF	10%	100V
C345	1-163-123-00	CERAMIC CHIP	180PF	5%	50V
C346	1-163-033-00	CERAMIC CHIP	0.022MF		50V
C347	1-124-903-11	ELECT	1MF	20%	50V
C348	1-124-903-11	ELECT	1MF	20%	50V
C349	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C350	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C351	1-137-102-11	FILM	0.022MF	10%	250V
C352	1-137-102-11	FILM	0.022MF	10%	250V
C353	1-163-063-00	CERAMIC CHIP	0.022MF	10%	50V
C354	1-124-910-11	ELECT	47MF	20%	50V
C357	1-163-377-11	CERAMIC CHIP	100PF	5%	50V
C358	1-124-917-11	ELECT	33MF	20%	50V
C359	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C360	1-101-004-00	CERAMIC	0.01MF		50V
C364	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C365	1-124-910-11	ELECT	47MF	20%	50V
C366	1-126-103-11	ELECT	470MF	20%	16V
C367	1-101-004-00	CERAMIC	0.01MF		50V
C381	1-124-902-00	ELECT	0.47MF	20%	50V
C382	1-124-927-11	ELECT	4.7MF	20%	50V
C384	1-124-910-11	ELECT	47MF	20%	50V
C385	1-124-927-11	ELECT	4.7MF	20%	50V
C386	1-124-927-11	ELECT	4.7MF	20%	50V (KV-X2951D ONLY)
C387	1-137-027-11	FILM	0.82MF	10%	63V
C388	1-137-098-11	FILM	0.1MF	10%	100V
C401	1-101-361-00	CERAMIC	150PF	5%	50V
C402	1-163-197-00	CERAMIC CHIP	470PF	5%	50V
C403	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C1311	1-163-111-00	CERAMIC CHIP	56PF	5%	50V (KV-X2551D ONLY)
	1-163-105-00	CERAMIC CHIP	33PF	5%	50V (KV-X2951D ONLY)
C1312	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C1313	1-102-953-00	CERAMIC	18PF	5%	50V
		<TRIMMER>			
CT331	1-141-418-11	CAP, ADJ			
CT332	1-141-418-11	CAP, ADJ			
		<DIODE>			
D301	8-719-911-19	DIODE 1SS119			
D302	8-719-911-19	DIODE 1SS119			
D303	8-719-911-19	DIODE 1SS119			
D304	8-719-911-19	DIODE 1SS119			
D305	8-719-911-19	DIODE 1SS119			
D307	8-719-110-23	DIODE RD11ES-B3			
D309	8-719-911-19	DIODE 1SS119			
D310	8-719-110-23	DIODE RD11ES-B3			
D311	8-719-110-23	DIODE RD11ES-B3			
D312	8-719-110-23	DIODE RD11ES-B3			

B

REF.NO.	PART NO.	DESCRIPTION	REMARK
D313	8-719-911-19	DIODE 1SS119	
D314	8-719-911-19	DIODE 1SS119	
D315	8-719-911-19	DIODE 1SS119	
D316	8-719-911-19	DIODE 1SS119	
D317	8-719-911-19	DIODE 1SS119	
D318	8-719-911-19	DIODE 1SS119	
D319	8-719-911-19	DIODE 1SS119	
D320	8-719-911-19	DIODE 1SS119	
D331	8-719-911-19	DIODE 1SS119	
D332	8-719-911-19	DIODE 1SS119	
D333	8-719-911-19	DIODE 1SS119	
D350	8-719-109-89	DIODE RD5.6ES-B2	
		<DELAY LINE>	
DL332	1-236-062-11	MODULE, Y DELAY LINE	
DL401	1-415-613-11	DELAY LINE, Y	
		<IC>	
IC301	8-759-517-43	IC TDA4580-V7	
IC302	8-759-980-60	IC TDA8442N3	
IC303	8-759-140-53	IC UPD4053BC	
IC331	8-759-521-22	IC TDA4650/V4	
IC332	8-759-505-39	IC TDA4660V2	
IC1301	1-235-534-11	CONTROL MODULE, PICTURE	(KV-X2951D ONLY)
		<COIL>	
L301	1-410-868-11	INDUCTOR 4.7UH	
L302	1-410-868-11	INDUCTOR 4.7UH	
L303	1-408-406-00	INDUCTOR 5.6UH	(KV-X2551D ONLY)
L331	1-404-554-11	COIL	
L336	1-404-554-11	COIL	
L338	1-408-409-00	INDUCTOR 10UH	
L1301	1-408-425-00	INDUCTOR 220UH	
L1302	1-408-419-00	INDUCTOR 68UH	
		<TRANSISTOR>	
Q301	8-729-120-28	TRANSISTOR 2SC1623-L5L6	(KV-X2551D ONLY)
Q303	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q305	8-729-901-06	TRANSISTOR DTA144EK	
Q306	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q311	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q312	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q313	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q316	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q330	8-729-216-22	TRANSISTOR 2SA1162-G	
Q331	8-729-901-00	TRANSISTOR DTC124EK	
Q332	8-729-216-22	TRANSISTOR 2SA1162-G	
Q333	8-729-216-22	TRANSISTOR 2SA1162-G	
Q334	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q335	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q381	8-729-901-00	TRANSISTOR DTC124EK	
Q382	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1301	8-729-901-00	TRANSISTOR DTC124EK	
Q1305	8-729-120-28	TRANSISTOR 2SC1623-L5L6	(KV-X2951D ONLY)
Q1306	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
		<RESISTOR>	
JR380	1-216-295-00	METAL GLAZE 0 5% 1/10W	(KV-X2951D ONLY)
JR385	1-216-206-00	METAL GLAZE 2.2K 5% 1/8W	
JR387	1-216-295-00	METAL GLAZE 0 5% 1/10W	(KV-X2951D ONLY)
JR390	1-216-295-00	METAL GLAZE 0 5% 1/10W	(KV-X2551D ONLY)
R301	1-249-409-11	CARBON 220 5% 1/4W	
R302	1-249-409-11	CARBON 220 5% 1/4W	
R303	1-249-409-11	CARBON 220 5% 1/4W	
R304	1-249-409-11	CARBON 220 5% 1/4W	
R305	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R306	1-216-295-00	METAL GLAZE 0 5% 1/10W	(KV-X2951D ONLY)
R307	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R308	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R309	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R310	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R311	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R312	1-249-409-11	CARBON 220 5% 1/4W	
R313	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R314	1-216-182-00	METAL GLAZE 220 5% 1/8W	
R315	1-216-031-00	METAL GLAZE 180 5% 1/10W	
R316	1-216-031-00	METAL GLAZE 180 5% 1/10W	
R317	1-216-031-00	METAL GLAZE 180 5% 1/10W	
R318	1-249-429-11	CARBON 10K 5% 1/4W	
R319	1-249-409-11	CARBON 220 5% 1/4W	
R320	1-216-198-00	METAL GLAZE 1K 5% 1/8W	
R321	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R322	1-216-049-00	METAL GLAZE 1K 5% 1/10W	(KV-X2551D ONLY)
	1-216-055-00	METAL GLAZE 1.8K 5% 1/10W	(KV-X2951D ONLY)
R328	1-216-311-00	METAL GLAZE 6.8 5% 1/10W	
R329	1-216-311-00	METAL GLAZE 6.8 5% 1/10W	
R330	1-216-311-00	METAL GLAZE 6.8 5% 1/10W	
R331	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R332	1-216-184-00	METAL GLAZE 270 5% 1/8W	
R333	1-216-121-00	METAL GLAZE 1M 5% 1/10W	
R334	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R335	1-247-852-11	CARBON 7.5K 5% 1/4W	
R336	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R337	1-216-184-00	METAL GLAZE 270 5% 1/8W	
R338	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R339	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R341	1-216-031-00	METAL GLAZE 180 5% 1/10W	
R342	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R344	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R346	1-216-202-00	METAL GLAZE 1.5K 5% 1/8W	
R347	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R348	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R349	1-216-045-00	METAL GLAZE 680 5% 1/10W	(KV-X2551D ONLY)
R350	1-216-045-00	METAL GLAZE 680 5% 1/10W	(KV-X2551D ONLY)
R351	1-216-033-00	METAL GLAZE 220 5% 1/10W	(KV-X2551D ONLY)
R354	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R355	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R356	1-216-069-00	METAL GLAZE 6.8K 5% 1/10W	
R357	1-216-033-00	METAL GLAZE 220 5% 1/10W	(KV-X2951D ONLY)
R358	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R359	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R360	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R361	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R363	1-216-055-00	METAL GLAZE 1.8K 5% 1/10W	
R364	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

B F A

REF.NO.	PART NO.	DESCRIPTION				REMARK
R365	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R366	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R367	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R370	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R372	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R376	1-249-429-11	CARBON	10K	5%	1/4W	
R377	1-216-037-00	METAL GLAZE	330	5%	1/10W	(KV-X2551D ONLY)
	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	(KV-X2951D ONLY)
R378	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R379	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R380	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R381	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R382	1-216-105-00	METAL GLAZE	220K	5%	1/10W	(KV-X2551D ONLY)
	1-216-103-00	METAL GLAZE	180K	5%	1/10W	(KV-X2951D ONLY)
R383	1-216-115-00	METAL GLAZE	560K	5%	1/10W	
R384	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R385	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R386	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	(KV-X2951D ONLY)
R387	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R388	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R389	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R390	1-216-033-00	METAL GLAZE	220	5%	1/10W	(KV-X2551D ONLY)
	1-216-025-00	METAL GLAZE	100	5%	1/10W	(KV-X2951D ONLY)
R392	1-216-021-00	METAL GLAZE	68	5%	1/10W	
R393	1-216-021-00	METAL GLAZE	68	5%	1/10W	
R394	1-216-021-00	METAL GLAZE	68	5%	1/10W	
R395	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W	
R396	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R398	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R401	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R402	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R403	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R404	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R405	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R406	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R407	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R410	1-216-184-00	METAL GLAZE	270	5%	1/8W	
R412	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1301	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1302	1-216-089-00	METAL GLAZE	47K	5%	1/10W	(KV-X2951D ONLY)
R1303	1-216-089-00	METAL GLAZE	47K	5%	1/10W	(KV-X2951D ONLY)
R1304	1-216-097-00	METAL GLAZE	100K	5%	1/10W	(KV-X2951D ONLY)
R1305	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R1307	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R1308	1-216-295-00	METAL GLAZE	0	5%	1/10W	(KV-X2551D ONLY)
	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	(KV-X2951D ONLY)
R1309	1-216-037-00	METAL GLAZE	330	5%	1/10W	

<VARIABLE RESISTOR>

RV331	1-238-012-11	RES, ADJ, CARBON 1K

<CRYSTAL>

X331	1-567-307-11	OSCILLATOR, CRYSTAL
X332	1-567-131-00	OSCILLATOR, CRYSTAL

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	*1-638-390-11	F BOARD
		*******
	*4-341-752-01	EYELET

<CONNECTOR>

F61	*1-580-690-11	PIN, CONNECTOR (PC BOARD) 4P
F62	*1-580-690-11	PIN, CONNECTOR (PC BOARD) 4P

<FUSE>

F1601⚠	1-576-231-21	FUSE (H.B.C.) 4A/250V
	1-533-230-11	HOLDER, FUSE; F1601

<SWITCH>

S1701⚠	1-571-433-12	SWITCH, PUSH (AC POWER)

****

	*A-1632-022-A	A BOARD, COMPLETE
		**********

<CONNECTOR>

A11	*1-565-393-11	CONNECTOR, BOARD TO BOARD
A12	*1-565-393-11	CONNECTOR, BOARD TO BOARD
A13	*1-565-503-11	CONNECTOR, BOARD TO BOARD 12P
A16	*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)
A17	*1-564-886-11	PLUG, CONNECTOR 9P
A19	*1-564-881-11	PLUG, CONNECTOR 4P

<CAPACITOR>

C101	1-126-233-11	ELECT	22MF	20%	50V
C102	1-126-103-11	ELECT	470MF	20%	16V
C104	1-124-910-11	ELECT	47MF	20%	50V
C106	1-126-233-11	ELECT	22MF	20%	50V
C108	1-136-165-00	FILM	0.1MF	5%	50V
C109	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C111	1-124-925-11	ELECT	2.2MF	20%	50V
C115	1-124-925-11	ELECT	2.2MF	20%	50V
C127	1-124-122-11	ELECT	100MF	20%	50V
C128	1-124-910-11	ELECT	47MF	20%	50V
C129	1-124-910-11	ELECT	47MF	20%	50V
C138	1-136-165-00	FILM	0.1MF	5%	50V
C171	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C172	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C177	1-102-074-00	CERAMIC	0.001MF	10%	50V
C181	1-101-004-00	CERAMIC	0.01MF		50V

<IC>

IC103	8-759-979-62	IC PCF8574

<COIL>

L100	1-410-683-31	INDUCTOR	560UH
L101	1-408-225-00	INDUCTOR	3.3UH

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

A **C**

REF.NO.	PART NO.	DESCRIPTION				REMARK
L102	1-408-413-00	INDUCTOR	22UH			
L107	1-408-397-00	INDUCTOR	1UH			
		<TRANSISTOR>				
Q113	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q114	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q115	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q116	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q125	8-729-900-89	TRANSISTOR DTC144ES				
Q126	8-729-901-06	TRANSISTOR DTA144EK				
Q181	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
		<RESISTOR>				
JR230	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR252	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR253	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR255	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR256	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR257	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR258	1-216-296-00	METAL GLAZE	0	5%	1/8W	
R101	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R105	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R107	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R108	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R110	1-249-429-11	CARBON	10K	5%	1/4W	
R111	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R116	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R118	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R128	1-216-027-00	METAL GLAZE	120	5%	1/10W	
R129	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R130	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R157	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R158	1-249-409-11	CARBON	220	5%	1/4W	
R159	1-249-409-11	CARBON	220	5%	1/4W	
R161	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R162	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R163	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R164	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R165	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R167	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R168	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R169	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R181	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R182	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R193	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R194	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R195	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R196	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
		<TUNER>				
TU101⚠	1-465-301-11	TUNER, ET (UV-816(PLL))				
		<IF BLOCK>				
VIF101	1-466-154-11	IF BLOCK (IFG-389S)				
********	**********	**********				
	*A-1638-011-A	C BOARD, COMPLETE (KV-X2551D ONLY)				
		**********				
	*A-1638-013-A	C BOARD, COMPLETE (KV-X2951D ONLY)				
		**********				
	*4-379-160-01	COVER (REAR LID), CV				
	*4-379-167-01	COVER (MAIN), CV				

REF.NO.	PART NO.	DESCRIPTION				REMARK
		<CONNECTOR>				
C71	*1-506-371-00	PIN, CONNECTOR 2P				
C72	*1-568-881-51	PIN, CONNECTOR 6P				
C81	*1-568-878-51	PIN, CONNECTOR 3P				
C82	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P				
		<CAPACITOR>				
C703	1-102-980-00	CERAMIC	270PF	5%	50V (KV-X2551D ONLY)	
	1-102-820-00	CERAMIC	330PF	5%	50V (KV-X2951D ONLY)	
C704	1-102-116-00	CERAMIC	680PF	10%	50V	
C705	1-102-978-00	CERAMIC	220PF	5%	50V (KV-X2551D ONLY)	
	1-102-980-00	CERAMIC	270PF	5%	50V (KV-X2951D ONLY)	
C706	1-102-116-00	CERAMIC	680PF	10%	50V	
C707	1-162-116-00	CERAMIC	680PF	10%	2KV	
C708	1-162-114-00	CERAMIC	0.0047MF		2KV	
C709	1-102-116-00	CERAMIC	680PF	10%	50V	
C710	1-123-947-00	ELECT	10MF	20%	250V	
C711	1-101-880-00	CERAMIC	47PF	5%	50V	
C712	1-102-980-00	CERAMIC	270PF	5%	50V (KV-X2551D ONLY)	
	1-102-820-00	CERAMIC	330PF	5%	50V (KV-X2951D ONLY)	
C714	1-124-360-00	ELECT	1000MF	20%	16V	
C716	1-162-622-11	CERAMIC	330PF	10%	400V	
C717	1-102-114-00	CERAMIC	470PF	10%	50V	
C718	1-102-114-00	CERAMIC	470PF	10%	50V	
C719	1-102-114-00	CERAMIC	470PF	10%	50V	
		<DIODE>				
D701	8-719-110-14	DIODE RD9.1ES-B3				
D702	8-719-911-19	DIODE 1SS119				
D703	8-719-911-19	DIODE 1SS119				
D704	8-719-911-19	DIODE 1SS119				
D705	8-719-911-19	DIODE 1SS119				
D706	8-719-911-19	DIODE 1SS119				
D707	8-719-911-19	DIODE 1SS119				
D708	8-719-911-19	DIODE 1SS119				
D709	8-719-911-19	DIODE 1SS119				
D710	8-719-911-19	DIODE 1SS119				
D711	8-719-300-33	DIODE RU-3AM				
D713	8-719-911-19	DIODE 1SS119				
		<JACK>				
J701	1-526-990-11	SOCKET, PICTURE TUBE				
		<COIL>				
L704	1-408-415-00	INDUCTOR	33UH			
		<TRANSISTOR>				
Q702	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q703	8-729-906-70	TRANSISTOR BF871				
Q704	8-729-200-17	TRANSISTOR 2SA1091-O				
Q705	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q706	8-729-906-70	TRANSISTOR BF871				
Q707	8-729-200-17	TRANSISTOR 2SA1091-O				
Q708	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q709	8-729-906-70	TRANSISTOR BF871				
Q710	8-729-200-17	TRANSISTOR 2SA1091-O				

C D

REF.NO.	PART NO.	DESCRIPTION				REMARK
		<RESISTOR>				
R704	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
R705	1-202-824-00	SOLID	3.3K	10%	1/2W	
R706	1-249-409-11	CARBON	220	5%	1/4W	
R707	1-249-412-11	CARBON	390	5%	1/4W	
R708	1-249-401-11	CARBON	47	5%	1/4W	
R709	1-202-844-00	SOLID	330K	10%	1/2W	
R710	1-215-465-00	METAL	68K	1%	1/4W	
R711	1-249-426-11	CARBON	5.6K	5%	1/4W	
R712	1-249-417-11	CARBON	1K	5%	1/4W	
R713	1-215-471-00	METAL	120K	1%	1/4W	
R714	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
R715	1-202-824-00	SOLID	3.3K	10%	1/2W	
R716	1-249-409-11	CARBON	220	5%	1/4W	
R717	1-249-415-11	CARBON	680	5%	1/4W	
R718	1-202-814-11	SOLID	33K	10%	1/2W	
R719	1-249-401-11	CARBON	47	5%	1/4W	
R720	1-249-423-11	CARBON	3.3K	5%	1/4W	
R721	1-202-842-11	SOLID	220K	10%	1/2W	
R722	1-202-848-00	SOLID	680K	10%	1/2W	
R723	1-249-417-11	CARBON	1K	5%	1/4W	
R724	1-202-846-00	SOLID	470K	10%	1/2W	
R725	1-202-838-00	SOLID	100K	10%	1/2W	
R726	1-202-824-00	SOLID	3.3K	10%	1/2W	
R727	1-249-409-11	CARBON	220	5%	1/4W	
R728	1-216-347-11	METAL OXIDE	0.68	5%	1W	F
R729	1-249-416-11	CARBON	820	5%	1/4W	
R730	1-249-401-11	CARBON	47	5%	1/4W	
R731	1-249-423-11	CARBON	3.3K	5%	1/4W	
R732	1-249-415-11	CARBON	680	5%	1/4W	
R733	1-249-415-11	CARBON	680	5%	1/4W	
R734	1-249-405-11	CARBON	100	5%	1/4W	
R735	1-215-493-00	METAL	1M	1%	1/4W	
R736	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
R737	1-215-491-00	METAL	820K	1%	1/4W	(KV-X2551D ONLY)
	1-215-485-00	METAL	470K	1%	1/4W	(KV-X2951D ONLY)
R739	1-249-417-11	CARBON	1K	5%	1/4W	
		<VARIABLE RESISTOR>				
RV701	1-230-641-11	RES, ADJ, METAL GLAZE 2.2M				
RV702	1-230-619-11	RES, ADJ, METAL GLAZE 110M				
RV703	1-237-749-11	RES, ADJ, CARBON 2200				
RV704	1-237-749-11	RES, ADJ, CARBON 2200				
**********						
	*A-1642-031-A	D BOARD, COMPLETE (KV-X2551D ONLY)				
		**********				
	*A-1642-032-A	D BOARD, COMPLETE (KV-X2951D ONLY)				
		**********				
	4-200-001-01	HOLDER, IC				
	4-201-023-01	SPACER, INSULATING				
	*4-341-751-01	EYELET				
	*4-341-752-01	EYELET				
	*4-368-683-01	SPRING				
		<CAPACITOR>				
C002	1-163-205-00	CERAMIC CHIP	0.001MF		5%	50V
C003	1-124-925-11	ELECT	2.2MF		20%	50V
C004	1-124-120-11	ELECT	220MF		20%	16V
C005	1-124-903-11	ELECT	1MF		20%	50V
C008	1-163-117-00	CERAMIC CHIP	100PF		5%	50V
C009	1-163-117-00	CERAMIC CHIP	100PF		5%	50V
C010	1-124-120-11	ELECT	220MF		20%	16V
C011	1-163-031-11	CERAMIC CHIP	0.01MF			50V
C013	1-137-098-11	FILM	0.1MF		10%	100V
C014	1-137-098-11	FILM	0.1MF		10%	100V
C015	1-124-902-00	ELECT	0.47MF		20%	50V
C016	1-163-141-00	CERAMIC CHIP	0.001MF		5%	50V
C017	1-137-098-11	FILM	0.1MF		10%	100V
C018	1-163-127-00	CERAMIC CHIP	270PF		5%	50V
C019	1-137-094-11	FILM	0.047MF		10%	100V
C021	1-163-117-00	CERAMIC CHIP	100PF		5%	50V
C023	1-163-117-00	CERAMIC CHIP	100PF		5%	50V
C024	1-163-117-00	CERAMIC CHIP	100PF		5%	50V
C027	1-124-910-11	ELECT	47MF		20%	50V
C030	1-163-038-00	CERAMIC CHIP	0.1MF			25V
C031	1-163-081-00	CERAMIC CHIP	0.22MF			25V
C032	1-163-081-00	CERAMIC CHIP	0.22MF			25V
C033	1-163-181-00	CERAMIC CHIP	100PF		5%	50V
C034	1-124-907-11	ELECT	10MF		20%	50V
C251	1-124-903-11	ELECT	1MF		20%	50V
C252	1-126-233-11	ELECT	22MF		20%	50V
C253	1-163-009-11	CERAMIC CHIP	0.001MF		10%	50V
C254	1-137-098-11	FILM	0.1MF		10%	100V
C255	1-124-636-00	ELECT	3300MF		20%	25V
C261	1-124-903-11	ELECT	1MF		20%	50V
C262	1-126-233-11	ELECT	22MF		20%	50V
C263	1-163-009-11	CERAMIC CHIP	0.001MF		10%	50V
C264	1-137-098-11	FILM	0.1MF		10%	100V
C265	1-124-564-11	ELECT	4700MF		20%	25V
C270	1-137-035-11	FILM	0.47MF		10%	100V
C274	1-137-035-11	FILM	0.47MF		10%	100V
C501	1-124-927-11	ELECT	4.7MF		20%	50V
C502	1-124-927-11	ELECT	4.7MF		20%	50V
C503	1-137-049-11	FILM	0.015MF		10%	400V
C504	1-163-121-00	CERAMIC CHIP	150PF		5%	50V
C505	1-108-794-11	MYLAR	0.0015MF		5%	50V
C506	1-137-102-11	FILM	0.022MF		10%	250V
C507	1-137-033-11	FILM	0.33MF		10%	100V
C508	1-137-102-11	FILM	0.022MF		10%	250V
C509	1-137-098-11	FILM	0.1MF		10%	100V
C510	1-161-959-00	CERAMIC	22PF		10%	500V
C511	1-108-686-11	MYLAR	0.0033MF		10%	100V
C512	1-137-098-11	FILM	0.1MF		10%	100V
C513	1-163-125-00	CERAMIC CHIP	220PF		5%	50V
C514	1-137-031-11	FILM	0.22MF		10%	100V
C515	1-124-903-11	ELECT	1MF		20%	50V
C516	1-108-680-11	MYLAR	0.001MF		10%	100V
C517	1-124-252-00	ELECT	0.33MF		20%	50V
C518	1-124-902-00	ELECT	0.47MF		20%	50V
C519	1-136-173-00	FILM	0.47MF		5%	50V (KV-X2551D ONLY)
	1-136-171-00	FILM	0.33MF		5%	50V (KV-X2951D ONLY)
C520	1-164-161-11	CERAMIC CHIP	0.0022MF		10%	50V
C521	1-137-098-11	FILM	0.1MF		10%	100V
C522	1-124-122-11	ELECT	100MF		20%	50V
C523	1-108-680-11	MYLAR	0.001MF		10%	100V
C524	1-108-798-11	MYLAR	0.0033MF		5%	50V
C525	1-163-117-00	CERAMIC CHIP	100PF		5%	50V
C526	1-163-103-00	CERAMIC CHIP	27PF		5%	50V
	1-163-101-00	CERAMIC CHIP	22PF		5%	50V (KV-X2551D ONLY) (KV-X2951D ONLY)

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

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REF.NO.	PART NO.	DESCRIPTION			REMARK
C527	1-137-098-11	FILM	0.1MF	10%	100V
C531	1-124-190-00	ELECT	680MF	10%	25V
C532	1-124-122-11	ELECT	100MF	20%	50V
C533	1-137-096-11	FILM	0.068MF	10%	100V
C534	1-124-120-11	ELECT	220MF	20%	16V
C536	1-131-365-00	TANTALUM	10MF	10%	16V
C537	1-124-903-11	ELECT	1MF	20%	50V
C538	1-108-680-11	MYLAR	0.001MF	10%	100V
C539	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C540	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C592	1-124-122-11	ELECT	100MF	20%	50V
C593	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C601 ⚠	1-161-964-61	CERAMIC	0.0047MF		250V
C602 ⚠	1-161-964-61	CERAMIC	0.0047MF		250V
C603 ⚠	1-161-964-61	CERAMIC	0.0047MF		250V
C604 ⚠	1-125-318-11	ELECT(BLOCK)	220MF	20%	400V
C605	1-124-484-11	ELECT	220MF	20%	35V
C606	1-163-137-00	CERAMIC CHIP	680PF	5%	50V
C607	1-137-028-11	FILM	1MF	10%	63V
C608	1-124-927-11	ELECT	4.7MF	20%	50V
C611	1-124-910-11	ELECT	47MF	20%	50V
C612	1-108-680-11	MYLAR	0.001MF	10%	100V
C613	1-136-539-11	FILM	0.0022MF	3%	2KV
C614	1-102-030-00	CERAMIC	330PF	10%	500V
C615	1-128-142-11	ELECT	1500MF	20%	25V
C616	1-102-030-00	CERAMIC	330PF	10%	500V
C617	1-124-122-11	ELECT	100MF	20%	50V
C618	1-162-115-00	CERAMIC	330PF	10%	2KV
C619	1-128-320-11	ELECT	2200MF	20%	16V
C620	1-136-173-00	FILM	0.47MF	5%	50V
C621	1-124-347-00	ELECT	100MF	20%	160V
C622	1-128-320-11	ELECT	2200MF	20%	16V
C623	1-124-910-11	ELECT	47MF	20%	50V
C624	1-124-122-11	ELECT	100MF	20%	50V
C625	1-124-360-00	ELECT	1000MF	20%	16V
C626	1-124-907-11	ELECT	10MF	20%	50V
C627	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C631	1-124-927-11	ELECT	4.7MF	20%	50V
C632	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C633	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C801	1-126-105-11	ELECT	1000MF	20%	35V
C802	1-102-030-00	CERAMIC	330PF	10%	500V
C804	1-123-948-00	ELECT	22MF	20%	250V
C805	1-162-114-00	CERAMIC	0.0047MF		2KV
C806	1-137-098-11	FILM	0.1MF	10%	100V
C807	1-106-395-00	MYLAR	0.15MF	10%	200V
C810	1-123-024-21	ELECT	33MF		160V
C811	1-136-113-00	FILM	2MF	5%	200V
C812	1-124-634-11	ELECT	1MF	20%	250V
C813	1-102-212-00	CERAMIC	820PF	10%	500V
C814 ⚠	1-161-731-51	CERAMIC	0.001MF	10%	2KV
C815	1-136-111-00	FILM	1MF	5%	200V (KV-X2551D ONLY)
	1-136-540-11	FILM	0.82MF	5%	200V (KV-X2951D ONLY)
C817 ⚠	1-136-565-11	FILM	0.015MF	3%	1.4KV (KV-X2551D ONLY)
⚠	1-136-591-11	FILM	0.017MF	3%	1.4KV (KV-X2951D ONLY)
C818 ⚠	1-129-721-51	FILM	0.039MF	10%	630V
C819 ⚠	1-161-731-51	CERAMIC	0.001MF	10%	2KV
C820	1-137-046-11	FILM	0.0082MF	10%	400V
C821 ⚠	1-162-116-51	CERAMIC	680PF	10%	2KV (KV-X2551D ONLY)

REF.NO.	PART NO.	DESCRIPTION			REMARK
C821 ⚠	1-162-134-51	CERAMIC	470PF	10%	2KV (KV-X2951D ONLY)
C822	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C823	1-137-043-11	FILM	0.0047MF	10%	400V
C824	1-102-212-00	CERAMIC	820PF	10%	500V
C825	1-137-102-11	FILM	0.022MF	10%	250V
C1601 ⚠	1-136-518-11	FILM	0.33MF	20%	300V
C1602 ⚠	1-136-519-11	FILM	0.47MF	20%	300V
C1603 ⚠	1-164-246-51	CERAMIC	0.0022MF	20%	400V
C1605 ⚠	1-164-246-51	CERAMIC	0.0022MF	20%	400V
C1607 ⚠	1-161-964-61	CERAMIC	0.0047MF		250V

<FILTER>

CF001	1-577-364-11	VIBRATOR, CERAMIC
CF501	1-567-888-11	OSCILLATOR, CERAMIC

<CONNECTOR>

D1	*1-568-881-51	PIN, CONNECTOR 6P
D2	*1-568-882-51	PIN, CONNECTOR 7P
D11	*1-565-394-11	PIN, BOARD TO BOARD CONNECTOR
D12	*1-565-394-11	PIN, BOARD TO BOARD CONNECTOR
D18	*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)
D21	*1-565-394-11	PIN, BOARD TO BOARD CONNECTOR
D22	*1-565-394-11	PIN, BOARD TO BOARD CONNECTOR
D31	*1-565-394-11	PIN, BOARD TO BOARD CONNECTOR
D32	*1-565-394-11	PIN, BOARD TO BOARD CONNECTOR
D33	*1-565-394-11	PIN, BOARD TO BOARD CONNECTOR
D41	*1-566-367-11	CONNECTOR, HINGE (RECEPTACLE)
D44	*1-568-881-51	PIN, CONNECTOR 6P
D45	*1-568-881-51	PIN, CONNECTOR 6P
D51	*1-566-367-11	CONNECTOR, HINGE (RECEPTACLE)
D62	*1-565-395-11	PIN, CONNECTOR 3P
D65	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P
D66	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P
D82	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P
D83	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P
D84	*1-580-798-11	CONNECTOR PIN (DY) 6P
D88	*1-568-878-51	PIN, CONNECTOR 3P (KV-X2951D ONLY)
D801	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P

<DIODE>

D001	8-719-109-97	DIODE RD6.8ES-B2
D002	8-719-109-97	DIODE RD6.8ES-B2
D003	8-719-911-19	DIODE 1SS119
D005	8-719-109-89	DIODE RD5.6ES-B2
D006	8-719-982-24	DIODE MTZJ-33A
D007	8-719-982-08	DIODE MTZJ-3.9B
D009	8-719-109-89	DIODE RD5.6ES-B2
D010	8-719-921-54	DIODE MTZJ-6.2B
D011	8-719-921-54	DIODE MTZJ-6.2B
D012	8-719-911-19	DIODE 1SS119
D013	8-719-109-97	DIODE RD6.8ES-B2
D271	8-719-921-88	DIODE MTZJ-13B
D272	8-719-911-19	DIODE 1SS119
D501	8-719-911-19	DIODE 1SS119
D504	8-719-911-55	DIODE U05G
D506	8-719-800-76	DIODE 1SS226 (KV-X2551D ONLY)
D508	8-719-911-19	DIODE 1SS119
D509	8-719-911-19	DIODE 1SS119

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REF.NO.	PART NO.	DESCRIPTION	REMARK
D511	8-719-911-55	DIODE UO5G	
D512	8-719-911-55	DIODE UO5G	
D513	8-719-010-34	DIODE UZ-4.7BSC	
D514	8-719-911-19	DIODE 1SS119 (KV-X2951D ONLY)	
D515	8-719-911-19	DIODE 1SS119 (KV-X2951D ONLY)	
D601 ⚠	8-719-510-63	DIODE D4SB60L-F	
D602	8-719-300-33	DIODE RU-3AM	
D603	8-719-911-55	DIODE UO5G	
D604	8-719-911-55	DIODE UO5G	
D605	8-719-911-55	DIODE UO5G	
D606	8-719-300-33	DIODE RU-3AM	
D607	8-719-300-33	DIODE RU-3AM	
D608	8-719-300-33	DIODE RU-3AM	
D609	8-719-982-24	DIODE MTZJ-33A	
D610	8-719-300-59	DIODE CTU-12S	
D611	8-719-900-26	DIODE ERD29-08J	
D612	8-719-300-59	DIODE CTU-12S	
D613	8-719-979-85	DIODE EGP20G	
D614	8-719-979-85	DIODE EGP20G	
D616	8-719-921-54	DIODE MTZJ-6.2B	
D617	8-719-911-19	DIODE 1SS119	
D618	8-719-109-89	DIODE RD5.6ES-B2	
D619	8-719-982-24	DIODE MTZJ-33A	
D620	8-719-800-76	DIODE 1SS226	
D621	8-719-982-24	DIODE MTZJ-33A	
D622	8-719-911-19	DIODE 1SS119	
D623	8-719-911-19	DIODE 1SS119	
D624	8-719-911-19	DIODE 1SS119	
D630	8-719-921-91	DIODE MTZJ-15A	
D801	8-719-300-33	DIODE RU-3AM	
D802	8-719-300-33	DIODE RU-3AM	
D803	8-719-976-64	DIODE RGP02-17	
D804	8-719-911-55	DIODE UO5G	
D805	8-719-911-55	DIODE UO5G	
D806	8-719-945-80	DIODE ERC06-15S	
D807	8-719-945-80	DIODE ERC06-15S	
D808	8-719-900-26	DIODE ERD29-08J	
		<IC>	
IC001	8-759-047-60	IC SDA20560-A012	
IC002	8-759-000-47	IC MC14051BCP	
IC003	8-759-945-58	IC RC4558P	
IC005	8-759-748-56	IC SDA2546	
IC251	8-759-988-94	IC TDA2050	
	4-812-134-00	RIVET NYLON, 3.5; IC251	
IC261	8-759-988-94	IC TDA2050	
	4-812-134-00	RIVET NYLON, 3.5; IC261	
IC501	8-759-970-73	IC TEA2028B	
IC502	8-759-944-57	IC TDA8170	
IC601	8-759-988-95	IC TEA2260	
IC604	8-759-510-52	IC TEA7605	
IC608	8-759-929-62	IC LM7812CT	
		<COIL>	
L501	1-408-225-00	INDUCTOR 3.3UH	
L601	1-420-872-00	COIL, AIR CORE	
L602	1-410-396-41	FERRITE BEAD INDUCTOR	
L603	1-410-396-41	FERRITE BEAD INDUCTOR	
L604	1-410-671-31	INDUCTOR 47UH	
L605	1-459-585-11	COIL (WITH CORE) (DRUM TYPE)	
L606	1-412-529-11	INDUCTOR 22UH	
L607	1-410-671-31	INDUCTOR 47UH	
L801	1-459-087-00	COIL,HCC DUST CORE 3.9MMH (KV-X2951D ONLY)	
L803	1-459-104-00	COIL, WITH CORE	
L804	1-408-239-00	INDUCTOR 4.7MMH	
L805 ⚠	1-459-755-12	COIL, HORIZONTAL LINEARITY (KV-X2551D ONLY)	
⚠	1-459-907-22	COIL, HORIZONTAL LINEARITY (KV-X2951D ONLY)	
L806	1-459-111-00	COIL, DRAM CORE (CDI) (KV-X2551D ONLY)	
	1-459-087-00	COIL,HCC DUST CORE 3.9MMH (KV-X2951D ONLY)	
L809	1-420-872-00	COIL, AIR CORE	
L810 ⚠	1-421-982-12	PMC (KV-X2551D ONLY)	
⚠	1-421-794-51	TRANSFORMER, FERRITE (PMT) (KV-X2951D ONLY)	
		<TRANSFORMER>	
LF1601 ⚠	1-421-866-12	LFT	
LF1602 ⚠	1-421-776-21	LFT	
LF1603 ⚠	1-421-862-11	LFT	
T601 ⚠	1-450-038-11	S.R.T (KV-X2551D ONLY)	
⚠	1-450-037-11	S.R.T (KV-X2951D ONLY)	
T602 ⚠	1-424-277-11	TRANSFORMER, TRIGGER PULSE	
T801 ⚠	1-437-090-21	HDT	
T802 ⚠	1-439-416-51	TRANSFORMER ASSY, FLYBACK (UX-1650)	
		<IC LINK>	
PS601 ⚠	1-532-984-91	LINK, IC (ICP-N50) 2A	
PS602 ⚠	1-532-984-91	LINK, IC (ICP-N50) 2A	
PS603 ⚠	1-532-679-91	LINK, IC (ICP-N15) 0.6A	
PS604 ⚠	1-532-984-91	LINK, IC (ICP-N50) 2A	
		<TRANSISTOR>	
Q001	8-729-901-01	TRANSISTOR DTC144EK	
Q002	8-729-901-01	TRANSISTOR DTC144EK	
Q003	8-729-216-22	TRANSISTOR 2SA1162-G	
Q004	8-729-216-22	TRANSISTOR 2SA1162-G	
Q005	8-729-901-01	TRANSISTOR DTC144EK	
Q006	8-729-901-01	TRANSISTOR DTC144EK	
Q007	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q008	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q009	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q010	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q251	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q261	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q271	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q502	8-729-216-22	TRANSISTOR 2SA1162-G	
Q505	8-729-140-96	TRANSISTOR 2SD774-34	
Q506	8-729-140-97	TRANSISTOR 2SB734-34	
Q507	8-729-216-22	TRANSISTOR 2SA1162-G	
Q598	8-729-216-22	TRANSISTOR 2SA1162-G	
Q601	8-729-122-03	TRANSISTOR 2SA1220A-P	
Q602	8-729-209-02	TRANSISTOR 2SD1548-LB	
Q603	8-729-122-03	TRANSISTOR 2SA1220A-P	
Q604	8-729-216-22	TRANSISTOR 2SA1162-G	
Q605	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q606	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q607	8-729-920-92	TRANSISTOR 2SD2096-EF	
Q608	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q609	8-729-320-62	TRANSISTOR 2SD789-34	
Q801	8-729-120-28	TRANSISTOR 2SC1623-L5L6	

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REF.NO.	PART NO.	DESCRIPTION				REMARK
Q804	8-729-304-50	TRANSISTOR 2SD1941-06				
Q805	8-729-119-80	TRANSISTOR 2SC2688-LK				
		<RESISTOR>				
JR1	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR3	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR4	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR7	1-216-296-00	METAL GLAZE	0	5%	1/8W	
R001	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R002	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R003	1-216-198-00	METAL GLAZE	1K	5%	1/8W	
R004	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R005	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R006	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R007	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R008	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R009	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R010	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R012	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R013	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R014	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R015	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R016	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R017	1-216-748-11	METAL GLAZE	39K	5%	1/10W	
R018	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R019	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R020	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R021	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R022	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R024	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R025	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R026	1-216-182-00	METAL GLAZE	220	5%	1/8W	
R027	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R028	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R029	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R030	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R031	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R032	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R033	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R034	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R035	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R036	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R037	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R038	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R039	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R040	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R041	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R042	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R043	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R044	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R045	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R046	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R047	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R048	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R049	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R050	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R051	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R052	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R053	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R054	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R055	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R056	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R057	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R058	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R059	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R060	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R061	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R062	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R063	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R064	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R065	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R066	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R067	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R068	1-216-174-00	METAL GLAZE	100	5%	1/8W	
R069	1-216-174-00	METAL GLAZE	100	5%	1/8W	
R070	1-216-198-00	METAL GLAZE	1K	5%	1/8W	
R071	1-216-198-00	METAL GLAZE	1K	5%	1/8W	
R072	1-216-222-00	METAL GLAZE	10K	5%	1/8W	
R073	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R075	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R076	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R077	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R078	1-216-198-00	METAL GLAZE	1K	5%	1/8W	
R079	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R080	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R081	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R083	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R084	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R085	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R086	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R087	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R088	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R093	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R094	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R095	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R096	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R098	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R251	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R252	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R253	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R254	1-216-357-00	METAL OXIDE	4.7	5%	1W	F
R255	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R256	1-216-115-00	METAL GLAZE	560K	5%	1/10W	
R257	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R258	1-215-869-11	METAL OXIDE	1K	5%	1W	F
R259	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R261	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R262	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R263	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R264	1-216-357-00	METAL OXIDE	4.7	5%	1W	F
R265	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R266	1-216-115-00	METAL GLAZE	560K	5%	1/10W	
R267	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R268	1-215-869-11	METAL OXIDE	1K	5%	1W	F
R269	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R270	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R271	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R272	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R273	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R274	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R500	1-216-115-00	METAL GLAZE	560K	5%	1/10W	
R501	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R502	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R503	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R504	1-249-420-11	CARBON	1.8K	5%	1/4W	
R505	1-216-077-00	METAL GLAZE	15K	5%	1/10W	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

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REF.NO.	PART NO.	DESCRIPTION				REMARK
R506	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R509	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R510	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R514	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R515	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R517	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R518	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R519	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R520	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R521	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R522	1-215-469-00	METAL	100K	1%	1/4W	
R523	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R524	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R525	1-216-049-00	METAL GLAZE	1K	5%	1/10W	(KV-X2551D ONLY)
R526	1-249-409-11	CARBON	220	5%	1/4W	F
R527	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R528	1-216-031-00	METAL GLAZE	180	5%	1/10W	
R529	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R530	1-249-448-11	CARBON	1.2	5%	1/4W	F
R531	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R532	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R533	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R534	1-216-119-00	METAL GLAZE	820K	5%	1/10W	
R535	1-249-749-00	CARBON	2.2M	5%	1/4W	
R536	1-216-129-00	METAL GLAZE	2.2M	5%	1/10W	
R537	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R538	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R539	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R540	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R541	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R542	1-216-308-00	METAL GLAZE	4.7	5%	1/10W	
R543	1-249-451-11	CARBON	2.2	5%	1/4W	
R544	1-247-745-11	CARBON	330	5%	1/2W	
R545	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R546	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R547	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R548	1-216-349-00	METAL OXIDE	1	5%	1W	F
R549	1-216-454-11	METAL OXIDE	390	5%	2W	F
R550	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R551	1-216-129-00	METAL GLAZE	2.2M	5%	1/10W	
R553	1-215-869-11	METAL OXIDE	1K	5%	1W	
R554	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R555	1-216-129-00	METAL GLAZE	2.2M	5%	1/10W	
R556	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R557	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R558	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R559	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R560	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R561	1-216-107-00	METAL GLAZE	270K	5%	1/10W	
						(KV-X2951D ONLY)
R570	1-216-045-00	METAL GLAZE	680	5%	1/10W	(KV-X2951D ONLY)
R591	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R592	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R593	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R594	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R597	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R598	1-215-900-11	METAL OXIDE	22K	5%	2W	F
R600	1-249-381-11	CARBON	1	5%	1/4W	
R601	1-216-353-00	METAL OXIDE	2.2	5%	1W	F
R603	1-216-469-11	METAL OXIDE	12	5%	3W	F
R604	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R605	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R606	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R607	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	(KV-X2551D ONLY)
	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	(KV-X2951D ONLY)
R608	1-216-488-11	METAL OXIDE	18K	5%	3W	F
R609	1-216-007-00	METAL GLAZE	18	5%	1/10W	
R610	1-244-941-00	CARBON	680K	5%	1/2W	
R611	1-216-015-00	METAL GLAZE	39	5%	1/10W	
R612	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R613	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R614	1-205-758-11	WIREWOUND	100	10%	10W	F
R616	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R617	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R618	1-216-431-11	METAL OXIDE	560	5%	1W	F
R619	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R620	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R621	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R622	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R623	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R624	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R625	1-215-865-11	METAL OXIDE	220	5%	1W	F
R626	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R628	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R629	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R631	1-216-465-11	METAL OXIDE	27K	5%	2W	(KV-X2551D ONLY)
R633	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R634	1-216-430-11	METAL OXIDE	390	5%	1W	F
R635	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R636	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R643	1-217-189-21	WIREWOUND	0.12	5%	2W	F
R651	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R653	1-205-758-11	WIREWOUND	100	10%	10W	F
R802	1-249-443-11	CARBON	0.47	5%	1/4W	F
R805	1-249-448-11	CARBON	1.2	5%	1/4W	F
R806	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R807	1-215-869-11	METAL OXIDE	1K	5%	1W	F
R809	1-202-821-11	SOLID	1.8K	10%	1/2W	
R810	1-202-818-00	SOLID	1K	10%	1/2W	
R811	1-215-882-00	METAL OXIDE	22	5%	2W	F
R812	1-249-494-11	CARBON	68K	5%	1/2W	(KV-X2551D ONLY)
	1-247-281-00	CARBON	51K	5%	1/2W	(KV-X2551D ONLY)
R815	1-215-884-11	METAL OXIDE	47	5%	2W	F
R816	1-215-868-00	METAL OXIDE	680	5%	1W	F
R817	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R820	1-249-403-11	CARBON	68	5%	1/4W	
R821	1-247-725-11	CARBON	10K	5%	1/4W	F
R822	1-217-778-11	FUSIBLE	1K	5%	1W	F
R825	1-216-345-11	METAL OXIDE	0.47	5%	1W	F
R826	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R827	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R828	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R829	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R831	1-249-451-11	CARBON	2.2	5%	1/4W	
R1601⚠	1-246-513-75	CARBON	47K	5%	1/4W	
R1602⚠	1-244-945-91	CARBON	1M	5%	1/2W	
R1603⚠	1-217-328-11	WIREWOUND	2.7	10%	7W	F
R1604⚠	1-246-513-75	CARBON	47K	5%	1/4W	
R1605⚠	1-218-265-91	METAL GLAZE	8.2M	5%	1W	
R5501	1-216-073-00	METAL GLAZE	10K	5%	1/10W	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

D VM V

REF.NO.	PART NO.	DESCRIPTION				REMARK
R5503	1-216-308-00	METAL GLAZE	4.7	5%	1/10W (KV-X2551D ONLY)	
	1-216-001-00	METAL GLAZE	10	5%	1/10W (KV-X2951D ONLY)	
R5504	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R5505	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R5506	1-216-075-00	METAL GLAZE	12K	5%	1/10W (KV-X2951D ONLY)	

<VARIABLE RESISTOR>

RV501	1-238-013-11	RES, ADJ, CARBON 2.2K
RV502	1-238-016-11	RES, ADJ, CARBON 10K
RV601	1-238-011-11	RES, ADJ, CARBON 470

<SPARK GAP>

SG801	1-519-422-11	GAP, SPARK

<THERMISTOR>

THP601⚠	1-808-059-32	THERMISTOR, POSITIVE

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*1-634-193-11 VM BOARD (KV-X2951D ONLY)
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<CAPACITOR>

C751	1-101-361-00	CERAMIC	150PF	5%	50V
C752	1-108-629-11	MYLAR	0.018MF	10%	100V
C753	1-137-047-11	FILM	0.01MF	10%	400V
C754	1-102-980-00	CERAMIC	270PF	5%	50V
C757	1-108-692-11	MYLAR	0.01MF	10%	200V
C759	1-124-907-11	ELECT	10MF	20%	50V
C760	1-124-917-11	ELECT	33MF	20%	50V
C761	1-101-006-00	CERAMIC	0.047MF		50V
C762	1-137-047-11	FILM	0.01MF	10%	400V

<COIL>

L751	1-408-413-00	INDUCTOR	22UH
L770	1-410-665-31	INDUCTOR	15UH

<TRANSISTOR>

Q751	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q752	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q753	8-729-140-97	TRANSISTOR 2SB734-34
Q754	8-729-140-96	TRANSISTOR 2SD774-34

<RESISTOR>

R751	1-249-418-11	CARBON	1.2K	5%	1/4W
R752	1-249-426-11	CARBON	5.6K	5%	1/4W
R753	1-249-414-11	CARBON	560	5%	1/4W
R754	1-249-434-11	CARBON	27K	5%	1/4W
R755	1-249-405-11	CARBON	100	5%	1/4W
R756	1-249-419-11	CARBON	1.5K	5%	1/4W
R757	1-249-405-11	CARBON	100	5%	1/4W
R758	1-249-409-11	CARBON	220	5%	1/4W
R760	1-249-411-11	CARBON	330	5%	1/4W
R761	1-249-429-11	CARBON	10K	5%	1/4W
R762	1-247-895-00	CARBON	470K	5%	1/4W

REF.NO.	PART NO.	DESCRIPTION				REMARK
R763	1-249-429-11	CARBON	10K	5%	1/4W	
R764	1-249-455-11	CARBON	4.7	5%	1/4W	F
R765	1-249-455-11	CARBON	4.7	5%	1/4W	F
R766	1-247-753-11	CARBON	1.2K	5%	1/2W	
R767	1-247-751-11	CARBON	820	5%	1/2W	
R768	1-215-887-00	METAL OXIDE	150	5%	2W	F
R769	1-212-889-00	FUSIBLE	220	5%	1/4W	F

<CONNECTOR>

VM73	*1-568-878-51	PIN, CONNECTOR 3P
VM88	*1-568-878-51	PIN, CONNECTOR 3P

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*A-1645-013-A V BOARD, COMPLETE
****

<CAPACITOR>

C1	1-126-101-11	ELECT	100MF	20%	16V
C2	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C3	1-124-120-11	ELECT	220MF	20%	16V
C4	1-163-077-00	CERAMIC CHIP	0.1MF		50V
C5	1-124-120-11	ELECT	220MF	20%	16V
C6	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C10	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C11	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C12	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C13	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C14	1-124-927-11	ELECT	4.7MF	20%	50V
C15	1-124-927-11	ELECT	4.7MF	20%	50V
C16	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C17	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C18	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C26	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C27	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C28	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C29	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C32	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C33	1-163-038-00	CERAMIC CHIP	0.1MF		25V

<CONNECTOR>

CNV1	*1-565-393-11	CONNECTOR, BOARD TO BOARD
CNV2	*1-565-393-11	CONNECTOR, BOARD TO BOARD

<DIODE>

D1	8-719-105-91	DIODE RD5.6M-B2
D3	8-719-914-44	DIODE DAP202K
D4	8-719-400-18	DIODE MA152WK
D5	8-719-914-44	DIODE DAP202K
D6	8-719-400-18	DIODE MA152WK
D7	8-719-105-52	DIODE RD3.6M-B2
D9	8-719-106-17	DIODE RD6.8M-B2

<IC>

IC1	8-759-039-18	IC SDA20162-B002
IC2	8-759-045-54	IC SAA5246P/E/M4A
IC3	8-759-510-49	IC FCB61C65L-70P

<COIL>

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

V **H1**

REF.NO.	PART NO.	DESCRIPTION				REMARK
L1	1-408-403-00	INDUCTOR	3.3UH			
L2	1-408-407-00	INDUCTOR	6.8UH			
L3	1-408-407-00	INDUCTOR	6.8UH			
L4	1-408-407-00	INDUCTOR	6.8UH			
		<IC LINK>				
PS1	⚠ 1-532-679-91	LINK, IC (ICP-N15) 0.6A				
		<TRANSISTOR>				
Q1	8-729-900-53	TRANSISTOR DTC114EK				
Q2	8-729-920-92	TRANSISTOR 2SD2096-EF				
Q3	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q4	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q5	8-729-807-87	TRANSISTOR 2SB1295-UL6				
Q6	8-729-807-87	TRANSISTOR 2SB1295-UL6				
Q7	8-729-807-87	TRANSISTOR 2SB1295-UL6				
Q8	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
		<RESISTOR>				
JR01	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR02	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR03	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR08	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR09	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR11	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR14	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR17	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR18	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR19	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR20	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR21	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR23	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR24	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR25	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR26	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR201	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR204	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR207	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR208	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR211	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR213	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR219	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR220	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR223	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R1	1-218-326-11	METAL GLAZE	470	5%	1/2W	
R2	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W	
R3	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R4	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R5	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R6	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R7	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R8	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R9	1-216-308-00	METAL GLAZE	4.7	5%	1/10W	
R10	1-218-325-11	METAL GLAZE	120	5%	1/4W	
R11	1-218-325-11	METAL GLAZE	120	5%	1/4W	
R12	1-218-325-11	METAL GLAZE	120	5%	1/4W	
R13	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R14	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R15	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R16	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R17	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R18	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R19	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R20	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R21	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R22	1-216-168-00	METAL GLAZE	56	5%	1/8W	
R23	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W	
R24	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R25	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R26	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R27	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W	
R28	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R34	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R35	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R40	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R41	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R42	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R44	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R46	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R47	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R49	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R50	1-216-296-00	METAL GLAZE	0	5%	1/8W	
		<VARIABLE RESISTOR>				
RV1	1-238-012-11	RES, ADJ, CARBON 1K				
		<CRYSTAL>				
X1	1-579-266-31	CRYSTAL VIBRATOR				
X2	1-577-364-11	VIBRATOR, CERAMIC				
		**********				
	*1-638-744-12	H1 BOARD				
		********				
		<CAPACITOR>				
C1651	1-102-106-00	CERAMIC	100PF	10%	50V	
C1652	1-102-106-00	CERAMIC	100PF	10%	50V	
C1653	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C1655	1-102-074-00	CERAMIC	0.001MF	10%	50V	
		<CONNECTOR>				
H1-1	*1-568-881-51	PIN, CONNECTOR 6P				
H1-02	1-568-678-11	TERMINAL BLOCK, S 3P				
H1-4	*1-568-879-51	PIN, CONNECTOR 4P				
H1-05	1-562-837-11	JACK				
H1-23	*1-568-879-51	PIN, CONNECTOR 4P				
H1-43	*1-564-512-11	PLUG, CONNECTOR 9P				
		<RESISTOR>				
R1651	1-249-413-11	CARBON	470	5%	1/4W	
R1652	1-249-413-11	CARBON	470	5%	1/4W	
		<SWITCH>				
S1651	1-571-532-21	SWITCH, TACTIL				
S1652	1-571-532-21	SWITCH, TACTIL				
S1653	1-571-532-21	SWITCH, TACTIL				

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H2 **J1**

REF.NO.	PART NO.	DESCRIPTION			REMARK
	*1-638-392-11	H2 BOARD			
		********			
	*4-374-987-01	GUIDE, LIGHT			
	*4-381-686-01	BRACKET (B), LIGHT GUIDE			
		<DIODE>			
D1651	8-719-948-31	DIODE LD-201VR			
	*4-201-076-01	HOLDER, LED; D1651			
D1652	8-719-948-31	DIODE LD-201VR			
	*4-201-076-01	HOLDER, LED; D1652			
D1654	8-719-948-31	DIODE LD-201VR			
	*4-201-076-01	HOLDER, LED; D1654			
		<CONNECTOR>			
H2-2	*1-568-882-51	PIN, CONNECTOR 7P			
		<IC>			
IC1651	8-741-101-75	IC SBX1610-11			
		<RESISTOR>			
R1662	1-249-413-11	CARBON	470	5% 1/4W	
**********					
	*A-1651-018-A	J1 BOARD, COMPLETE (KV-X2551D ONLY)			
		**********			
	*A-1651-020-A	J1 BOARD, COMPLETE (KV-X2951D ONLY)			
		**********			
		<CAPACITOR>			
C203	1-124-925-11	ELECT	2.2MF	20% 50V	
C205	1-124-927-11	ELECT	4.7MF	20% 50V	
C206	1-124-925-11	ELECT	2.2MF	20% 50V	
C207	1-124-927-11	ELECT	4.7MF	20% 50V	
C213	1-126-233-11	ELECT	22MF	20% 50V	
C214	1-137-045-11	FILM	0.0068MF	10% 400V	
C217	1-137-045-11	FILM	0.0068MF	10% 400V	
C218	1-137-102-11	FILM	0.022MF	10% 250V	
C219	1-137-102-11	FILM	0.022MF	10% 250V	
C220	1-108-686-11	MYLAR	0.0033MF	10% 100V	
C221	1-108-686-11	MYLAR	0.0033MF	10% 100V	
C222	1-137-095-11	FILM	0.056MF	10% 100V	
C223	1-137-095-11	FILM	0.056MF	10% 100V	
C224	1-137-047-11	FILM	0.01MF	10% 400V	
C225	1-136-173-00	FILM	0.47MF	5% 50V	
C226	1-136-173-00	FILM	0.47MF	5% 50V	
C227	1-137-102-11	FILM	0.022MF	10% 250V	
C228	1-137-104-11	FILM	0.033MF	10% 250V	
C229	1-137-049-11	FILM	0.015MF	10% 400V	
C230	1-137-049-11	FILM	0.015MF	10% 400V	
C231	1-124-902-00	ELECT	0.47MF	20% 50V	
C232	1-124-907-11	ELECT	1MF	20% 50V	
C233	1-163-005-11	CERAMIC CHIP	470PF	10% 50V	
C234	1-163-005-11	CERAMIC CHIP	470PF	10% 50V	
C235	1-163-005-11	CERAMIC CHIP	470PF	10% 50V	
C236	1-163-005-11	CERAMIC CHIP	470PF	10% 50V	
C237	1-124-902-00	ELECT	0.47MF	20% 50V	
C238	1-163-125-00	CERAMIC CHIP	220PF	5% 50V	
C239	1-126-103-11	ELECT	470MF	20% 16V	
C240	1-163-018-00	CERAMIC CHIP	0.0056MF	10% 50V	
C241	1-163-018-00	CERAMIC CHIP	0.0056MF	10% 50V	
C242	1-163-033-00	CERAMIC CHIP	0.022MF	50V	
C243	1-163-033-00	CERAMIC CHIP	0.022MF	50V	
C244	1-163-033-00	CERAMIC CHIP	0.022MF	50V	
C245	1-163-033-00	CERAMIC CHIP	0.022MF	50V	
C1401	1-124-907-11	ELECT	1MF	20% 50V	
C1402	1-126-103-11	ELECT	470MF	20% 16V	
C1403	1-163-003-11	CERAMIC CHIP	330PF	10% 50V	
C1404	1-137-098-11	FILM	0.1MF	10% 100V	
C1405	1-163-029-11	CERAMIC CHIP	0.0047MF	50V	
C1406	1-137-098-11	FILM	0.1MF	10% 100V	
C1407	1-124-910-11	ELECT	47MF	20% 50V	
C1408	1-124-122-11	ELECT	100MF	20% 50V	
C1409	1-126-233-11	ELECT	22MF	20% 50V	
C1410	1-124-907-11	ELECT	1MF	20% 50V	
C1411	1-124-907-11	ELECT	1MF	20% 50V	
C1412	1-124-910-11	ELECT	47MF	20% 50V	
C1413	1-124-910-11	ELECT	47MF	20% 50V	
C1414	1-124-907-11	ELECT	1MF	20% 50V	
C1415	1-137-098-11	FILM	0.1MF	10% 100V	
C1416	1-137-098-11	FILM	0.1MF	10% 100V	
C1417	1-124-120-11	ELECT	220MF	20% 16V	
C1418	1-163-003-11	CERAMIC CHIP	330PF	10% 50V	
C1419	1-163-003-11	CERAMIC CHIP	330PF	10% 50V	
C1425	1-124-902-00	ELECT	0.47MF	20% 50V	
C1426	1-124-902-00	ELECT	0.47MF	20% 50V	
C1427	1-163-029-11	CERAMIC CHIP	0.0047MF	50V	
C1428	1-163-029-11	CERAMIC CHIP	0.0047MF	50V	
C1429	1-163-029-11	CERAMIC CHIP	0.0047MF	50V	
C1430	1-163-003-11	CERAMIC CHIP	330PF	10% 50V	
C1431	1-126-529-11	ELECT	0.47MF	20% 50V	
C1432	1-124-902-00	ELECT	0.47MF	20% 50V	
C1433	1-124-122-11	ELECT	100MF	20% 50V	
C1436	1-163-009-11	CERAMIC CHIP	0.001MF	10% 50V	
C1437	1-163-009-11	CERAMIC CHIP	0.001MF	10% 50V	
C1438	1-137-047-11	FILM	0.01MF	10% 400V	
C1439	1-137-047-11	FILM	0.01MF	10% 400V	
C1440	1-124-907-11	ELECT	1MF	20% 50V	
C1441	1-124-907-11	ELECT	1MF	20% 50V	
C1442	1-137-098-11	FILM	0.1MF	10% 100V	
C1443	1-137-098-11	FILM	0.1MF	10% 100V	

REF.NO.	PART NO.	DESCRIPTION				REMARK
C1444	1-124-910-11	ELECT	47MF	20%	50V	
C1445	1-102-824-00	CERAMIC	470PF	5%	50V	
C1446	1-102-824-00	CERAMIC	470PF	5%	50V	
C1501	1-124-927-11	ELECT	4.7MF	20%	50V	
C1502	1-124-903-11	ELECT	1MF	20%	50V	
C1503	1-108-680-11	MYLAR	0.001MF	10%	100V	
C1504	1-124-910-11	ELECT	47MF	20%	50V	
C1505	1-137-094-11	FILM	0.047MF	10%	100V	
C1507	1-108-686-11	MYLAR	0.0033MF	10%	100V	
C1508	1-124-903-11	ELECT	1MF	20%	50V	
C1509	1-124-903-11	ELECT	1MF	20%	50V	
C1511	1-124-927-11	ELECT	4.7MF	20%	50V	
C1512	1-137-045-11	FILM	0.0068MF	10%	400V	(KV-X2551D ONLY)
C1513	1-163-105-00	CERAMIC CHIP	33PF	5%	50V	
C1514	1-137-102-11	FILM	0.022MF	10%	250V	(KV-X2551D ONLY)
C1515	1-102-117-00	CERAMIC	820PF	10%	50V	(KV-X2551D ONLY)

<CONNECTOR>

CN1401	1-565-838-11	JACK BLOCK, PIN 2P	
J1-41	*1-566-641-11	CONNECTOR, HINGE (TAB) 18P	
J1-43	*1-564-524-11	PLUG, CONNECTOR 9P	
J1-44	*1-564-527-11	PLUG, CONNECTOR 12P	
J1-51	*1-566-641-11	CONNECTOR, HINGE (TAB) 18P	

<DIODE>

D201	8-719-110-14	DIODE	RD9.1ES-B3
D202	8-719-110-14	DIODE	RD9.1ES-B3
D205	8-719-110-03	DIODE	RD7.5ES-B2
D206	8-719-110-03	DIODE	RD7.5ES-B2
D1401	8-719-110-03	DIODE	RD7.5ES-B2
D1403	8-719-110-03	DIODE	RD7.5ES-B2
D1404	8-719-110-03	DIODE	RD7.5ES-B2
D1405	8-719-110-03	DIODE	RD7.5ES-B2
D1406	8-719-110-03	DIODE	RD7.5ES-B2
D1407	8-719-921-77	DIODE	MTZN-10C
D1408	8-719-110-14	DIODE	RD9.1ES-B3
D1409	8-719-110-14	DIODE	RD9.1ES-B3
D1410	8-719-110-14	DIODE	RD9.1ES-B3
D1415	8-719-110-03	DIODE	RD7.5ES-B2
D1418	8-719-110-03	DIODE	RD7.5ES-B2
D1419	8-719-110-03	DIODE	RD7.5ES-B2
D1420	8-719-110-03	DIODE	RD7.5ES-B2
D1421	8-719-110-03	DIODE	RD7.5ES-B2
D1422	8-719-110-03	DIODE	RD7.5ES-B2
D1423	8-719-110-03	DIODE	RD7.5ES-B2
D1424	8-719-110-03	DIODE	RD7.5ES-B2
D1425	8-719-110-03	DIODE	RD7.5ES-B2
D1426	8-719-110-03	DIODE	RD7.5ES-B2
D1501	8-719-300-33	DIODE	RU-3AM
D1502	8-719-911-19	DIODE	1SS119
D1503	8-719-911-19	DIODE	1SS119
D1504	8-719-911-19	DIODE	1SS119
D1505	8-719-911-19	DIODE	1SS119
D1506	8-719-982-33	DIODE	MTZJ-36D
D1507	8-719-911-19	DIODE	1SS119
D1510	8-719-911-19	DIODE	1SS119

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC201	8-759-013-17	IC TDA6200	
IC1401	8-752-053-17	IC CXA1114P	
IC1402	8-759-946-32	IC TEA2014A	
IC1403	8-759-140-53	IC UPD4053BC	
IC1501	8-759-942-16	IC TEA2031A	

<JACK>

J1402	1-561-534-41	SOCKET 21P	
J1403	1-561-534-41	SOCKET 21P	

<TRANSISTOR>

Q201	8-729-120-28	TRANSISTOR	2SC1623-L5L6
Q202	8-729-120-28	TRANSISTOR	2SC1623-L5L6
Q1401	8-729-216-22	TRANSISTOR	2SA1162-G
Q1402	8-729-120-28	TRANSISTOR	2SC1623-L5L6
Q1403	8-729-120-28	TRANSISTOR	2SC1623-L5L6
Q1404	8-729-216-22	TRANSISTOR	2SA1162-G

<RESISTOR>

R201	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R202	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W	
R203	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R204	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R205	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R206	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R207	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R208	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R209	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R210	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R211	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R212	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R213	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R214	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R215	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R216	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R217	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R218	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R219	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R220	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R221	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R222	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R223	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R224	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R225	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R226	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R227	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R228	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R229	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R230	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R231	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R232	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R233	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R234	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R235	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R236	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R240	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R241	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R242	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R243	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R244	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R245	1-216-075-00	METAL GLAZE	12K	5%	1/10W	

J1 IFG

REF.NO.	PART NO.	DESCRIPTION				REMARK
R246	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R247	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R248	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R249	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R250	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R1400	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R1401	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R1402	1-216-170-00	METAL GLAZE	68	5%	1/8W	
R1403	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1404	1-216-178-00	METAL GLAZE	150	5%	1/8W	
R1405	1-249-434-11	CARBON	27K	5%	1/4W	
R1407	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1408	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1409	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1410	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1411	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1412	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1413	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1414	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1415	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1416	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1417	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R1418	1-247-738-11	CARBON	82	5%	1/2W	F
R1419	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R1420	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R1421	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R1422	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1423	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1424	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1425	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1426	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1427	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R1428	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1429	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1430	1-216-170-00	METAL GLAZE	68	5%	1/8W	
R1431	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1432	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1433	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1434	1-249-393-11	CARBON	10	5%	1/4W	F
R1437	1-249-434-11	CARBON	27K	5%	1/4W	
R1440	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1441	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1442	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1443	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1444	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1445	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R1446	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1447	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1448	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1449	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R1452	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1453	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1454	1-216-180-00	METAL GLAZE	180	5%	1/8W	
R1455	1-216-180-00	METAL GLAZE	180	5%	1/8W	
R1457	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1459	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1460	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1461	1-216-190-00	METAL GLAZE	470	5%	1/8W	
R1462	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1463	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1464	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1465	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R1466	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1467	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1468	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1469	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1470	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1471	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R1472	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R1473	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R1474	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1476	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1477	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1478	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1480	1-216-190-00	METAL GLAZE	470	5%	1/8W	
R1482	1-216-178-00	METAL GLAZE	150	5%	1/8W	
R1483	1-216-178-00	METAL GLAZE	150	5%	1/8W	
R1484	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1485	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1486	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1487	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1488	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1489	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1501	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1502	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1503	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1504	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R1505	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1506	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1509	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R1510	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R1511	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1512	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1513	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R1514	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1515	1-216-117-00	METAL GLAZE	680K	5%	1/10W	(KV-X2551D ONLY)
R1516	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R1517	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1519	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R1520	1-216-113-00	METAL GLAZE	470K	5%	1/10W	(KV-X2551D ONLY)
	1-216-111-00	METAL GLAZE	390K	5%	1/10W	(KV-X2951D ONLY)
R1521	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W	
R1550	1-216-349-00	METAL OXIDE	1	5%	1W	F (KV-X2951D ONLY)
R1556	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	

<VARIABLE RESISTOR>

RV1501	1-238-023-11	RES, ADJ, CARBON 470K
RV1502	1-238-016-11	RES, ADJ, CARBON 10K
RV1503	1-238-017-11	RES, ADJ, CARBON 22K
RV1504	1-238-012-11	RES, ADJ, CARBON 1K
RV1505	1-238-023-11	RES, ADJ, CARBON 470K
RV1506	1-238-017-11	RES, ADJ, CARBON 22K
RV1507	1-238-009-11	RES, ADJ, CARBON 220
RV1508	1-238-016-11	RES, ADJ, CARBON 10K
RV1509	1-238-023-11	RES, ADJ, CARBON 470K

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*A-1654-004-A IFG BOARD, COMPLETE
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<CAPACITOR>

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

IFG

REF.NO.	PART NO.	DESCRIPTION		REMARK
C1	1-163-031-11	CERAMIC CHIP 0.01MF		50V
C2	1-163-031-11	CERAMIC CHIP 0.01MF		50V
C3	1-163-031-11	CERAMIC CHIP 0.01MF		50V
C4	1-163-031-11	CERAMIC CHIP 0.01MF		50V
C5	1-163-031-11	CERAMIC CHIP 0.01MF		50V
C6	1-163-031-11	CERAMIC CHIP 0.01MF		50V
C7	1-124-903-11	ELECT 1MF	20%	50V
C8	1-124-907-11	ELECT 10MF	20%	50V
C9	1-130-471-00	MYLAR 0.001MF	5%	50V
C10	1-163-121-00	CERAMIC CHIP 150PF	5%	50V
C11	1-163-119-00	CERAMIC CHIP 120PF	5%	50V
C12	1-136-298-00	FILM 0.0033MF	2%	100V
C13	1-124-477-11	ELECT 47MF	20%	16V
C14	1-124-477-11	ELECT 47MF	20%	16V
C15	1-124-477-11	ELECT 47MF	20%	16V
C16	1-124-477-11	ELECT 47MF	20%	16V
C17	1-124-907-11	ELECT 10MF	20%	50V
C18	1-137-047-11	FILM 0.01MF	10%	400V
C19	1-137-047-11	FILM 0.01MF	10%	400V
C20	1-126-233-11	ELECT 22MF	20%	50V
C21	1-126-233-11	ELECT 22MF	20%	50V
C22	1-137-098-11	FILM 0.1MF	10%	100V
C23	1-137-031-11	FILM 0.22MF	10%	100V
C24	1-124-034-51	ELECT 33MF	20%	16V
C25	1-137-102-11	FILM 0.022MF	10%	250V
C26	1-137-094-11	FILM 0.047MF	10%	100V
C27	1-124-903-11	ELECT 1MF	20%	50V
C28	1-163-109-00	CERAMIC CHIP 47PF	5%	50V
C29	1-124-903-11	ELECT 1MF	20%	50V
C30	1-124-903-11	ELECT 1MF	20%	50V
C31	1-137-047-11	FILM 0.01MF	10%	400V
C32	1-130-479-00	MYLAR 0.0047MF	5%	50V
C33	1-163-081-00	CERAMIC CHIP 0.22MF		25V
C34	1-137-031-11	FILM 0.22MF	10%	100V
C35	1-124-907-11	ELECT 10MF	20%	50V
C36	1-163-119-00	CERAMIC CHIP 120PF	5%	50V
C37	1-124-477-11	ELECT 47MF	20%	16V
C38	1-124-477-11	ELECT 47MF	20%	16V
C39	1-163-133-00	CERAMIC CHIP 470PF	5%	50V

<FILTER>

CDA1	1-404-751-11	DISCRIMINATOR, CERAMIC
CDA2	1-404-750-11	DISCRIMINATOR, CERAMIC
SFT1	1-527-840-00	FILTER, CERAMIC
SFT2	1-527-839-00	FILTER, CERAMIC

<DIODE>

D3	8-719-400-18	DIODE MA152WK

<IC>

IC1	8-759-003-90	IC TBA129
IC2	8-759-003-90	IC TBA129
IC3	8-759-030-48	IC TDA6600-2
IC4	8-759-513-48	IC TDA2595/V9

<CONNECTOR>

IFG13	*1-565-488-11	CONNECTOR, BOARD TO BOARD 12P

<COIL>

REF.NO.	PART NO.	DESCRIPTION		REMARK
L1	1-408-410-00	INDUCTOR	12UH	
L2	1-408-410-00	INDUCTOR	12UH	
L3	1-410-064-11	INDUCTOR	2.7MMH	
L4	1-408-421-00	INDUCTOR	100UH	
L5	1-408-421-00	INDUCTOR	100UH	

<TRANSISTOR>

Q2	8-729-901-00	TRANSISTOR DTC124EK
Q3	8-729-216-22	TRANSISTOR 2SA1162-G
Q4	8-729-901-00	TRANSISTOR DTC124EK

<RESISTOR>

JR8	1-216-296-00	METAL GLAZE	0	5%	1/8W
JR10	1-216-296-00	METAL GLAZE	0	5%	1/8W
R1	1-216-045-00	METAL GLAZE	680	5%	1/10W
R2	1-216-043-00	METAL GLAZE	560	5%	1/10W
R3	1-216-043-00	METAL GLAZE	560	5%	1/10W
R5	1-216-045-00	METAL GLAZE	680	5%	1/10W
R6	1-216-043-00	METAL GLAZE	560	5%	1/10W
R7	1-216-043-00	METAL GLAZE	560	5%	1/10W
R9	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R11	1-216-095-00	METAL GLAZE	82K	5%	1/10W
R12	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R13	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W
R15	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W
R16	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R17	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R18	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W
R19	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R20	1-216-075-00	METAL GLAZE	12K	5%	1/10W
R22	1-216-099-00	METAL GLAZE	120K	5%	1/10W
R24	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R25	1-216-077-00	METAL GLAZE	15K	5%	1/10W

<VARIABLE RESISTOR>

RV1	1-238-016-11	RES, ADJ, CARBON 10K
RV2	1-238-019-11	RES, ADJ, CARBON 47K

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MISCELLANEOUS
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⚠	1-460-091-11	COIL, DEGAUSS (KV-X2551D ONLY)
⚠	1-426-535-11	COIL, DEGAUSSING (KV-X2951D ONLY
⚠	1-451-311-21	DEFLECTION YOKE (Y25FXA) (KV-X255 D ONLY)
⚠	1-451-313-21	DEFLECTION YOKE (Y29FXA) (KV-X295 D ONLY)
	1-452-032-00	MAGNET, DISK; 10MM ϕ
	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM ϕ
⚠	1-452-509-42	NECK ASSY, PICTURE TUBE (NA-308) (KV-X295 D ONLY)
	1-544-727-11	SPEAKER (7.5X13CM)
⚠	1-590-501-11	CORD, POWER (WITH NOISE FILTER)
V901	⚠ 8-733-231-05	PICTURE TUBE (A59JWC61X) (KV-X255 D ONLY)
	⚠ 8-733-831-05	PICTURE TUBE (A68JYL61X) (KV-X295 D ONLY)

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ACCESSORIES AND PACKING MATERIALS
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PART NO.	DESCRIPTION	REMARK
4-200-874-11	MANUAL, INSTRUCTION (GERMAN/ENGLISH/ FRENCH/DUTCH/ITALIAN/PORTUGUESE)	
*4-034-981-01	CUSHION (UPPER) (ASSY) (KV-X2551D ONLY)	
*4-200-876-01	CUSHION (UPPER) (ASSY) (KV-X2951D ONLY)	
*4-035-035-01	CUSHION (LOWER) (ASSY) (KV-X2551D ONLY)	
*4-200-879-01	CUSHION (LOWER) (ASSY) (KV-X2951D ONLY)	
*4-035-040-01	INDIVIDUAL CARTON (KV-X2551D ONLY)	
*4-200-884-01	INDIVIDUAL CARTON (KV-X2951D ONLY)	
*4-380-340-01	BAG, PROTECTION (KV-X2551D ONLY)	
*4-384-027-01	BAG, PROTECTION (KV-X2951D ONLY)	
	REMOTE COMMANDER	
1-465-796-11	CONTROL UNIT, REMOTE (RM-816)	
4-031-670-01	COVER, POCKET (FOR RM-816)	

9-964-782-01

Sony Corporation
TV Group

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